

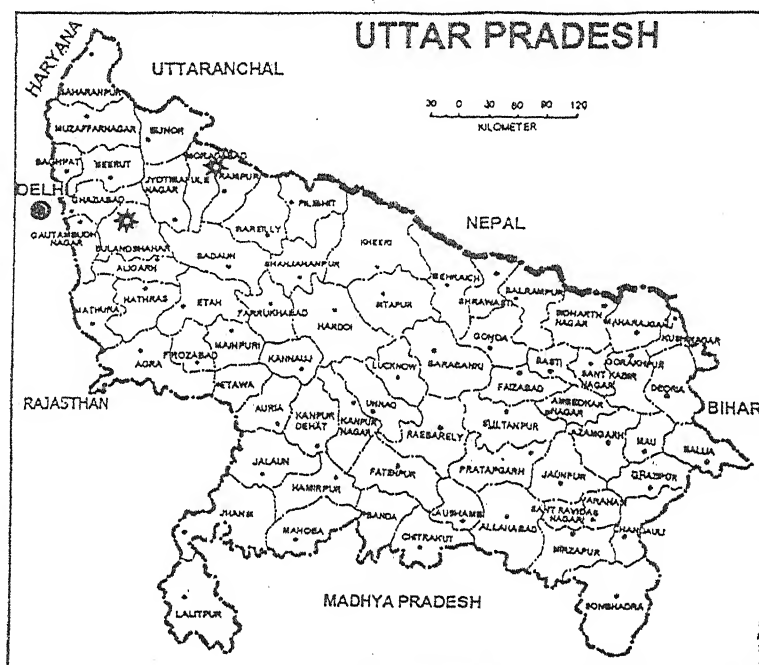
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PILOT STUDY ON NATIONAL URBAN OBSERVATORY



URBAN INDICATORS
MORADABAD AND BULANDSHAHR CITIES
May, 2003
Sponsored by



TOWN AND COUNTRY PLANNING ORGANISATION
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Government of India
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Study Conducted by
DR S S A JAFRI

GIRI INSTITUTE OF DEVELOPMENT STUDIES
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**Pilot Study on
National Urban Observatory**

**Moradabad and Bulandshahr
(Uttar Pradesh)**

May, 2003

**Giri Institute of Development Studies
Sector "O", Aliganj Housing Scheme
Lucknow 226 024**

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PREFACE

Industrialisation and Urbanization are complementary to each other and together they are engine of growth of over all development. According to 1991 census, there were 4515 towns and cities where country's 25.70 per cent population resided. There were 23 large cities of above million inhabitants where population growth rate was exceptionally high due to heavy influx from the country side. During 2001 census the number of urban settlements grew to 5161 in which about 27.78 per cent country's population was accommodated. Large million plus cities grew to 35. Due to constant and rapid growth of population, especially in large cities the existing urban facilities are always insufficient and urban machinery is ever exhausted.

Since independence India faced acute shortage of food grain essential for human survival which diverted the government attention towards development of agricultural infrastructure, thus over all urban development was side-tracked. Urban information system could not be developed compared to rural information system, which affected the urban planning. Towns and cities were left scot-free and haphazard growth made congested, filthy, polluted and slum like localities all around. Development Authorities took-up the house construction as a priority which served very little for few. Acute shortage of dwellings with limited resources compelled the houseless masses to go ahead with unplanned and haphazard constructions in absence of any control. It could have been ideal if Development Authorities were concentrating to provide site and services for houses instead of wasting their energy in house construction. It needs a clear policy of the government.

From beginning of civilization, urbanisation is a natural phenomenon which can't be stopped but can be managed for human comfort and civilized living. The planned management of urban development depends upon detailed information of urban settlements and their environ. Like Census, NSS and revenue departments, every town/city must have an independent urban data bank, which should be readily available on internet for city planners. Besides this, satellite imageries and aerial photographs of towns/cities must be taken every year and made available along with the data. In order to realise the dreams of Habitat-II Conference and make the Urban Indicators Programme (UIP) true, government has to urgently establish the Urban data bank as an independent authority.

TCPO sponsored a very delicate responsibility to Giri Institute of Development Studies to conduct a Pilot Study of Moradabad and Bulandshahr cities for National Urban Observatory for which I am grateful to TCPO for recognition. I am specially obliged to Shri K.T. Gurumukhi, Chief Planner of TCPO for timely financial assistance and valuable suggestions. Shri Jay B. Kshirsagar, Town & Country Planner of TCPO has taken keen interest by giving thoughtful and scholarly ideas throughout the period of its completion, I am extremely thankful to him.

My senior colleague and Director of the Institute Prof. G.P. Mishra was always a source of inspiration by which I could be able to bring this report into a shape. My colleagues among faculty and staff deserve my sincere thanks for encouraging me in completing the project. My thanks go to Miss. Ishrat Hasnain, Technical Assistant, who gladly supervised the project staff in computer work. My research and field staff of the project namely Dr. (Miss) Abhilasha Shrivastava R.A., Mr. K.S. Deoli R.A., Mr. Mohammad Zuber R.A., Mr. V.K. Bisht, F.I., Mr. S.K. Dutt and Mr. S.A. Farooqui F.I. who conducted the entire field survey and tabulated the data on stipulated time, deserve my heartfelt appreciation and thanks. Dr. Abhilasha Shrivastava deserves special thanks who took maximum pain in computer work and checking the manuscript. I am grateful to Mr. N.B. Bhatt for typing the manuscript as desired on time. Finally I wish to thank my daughter Miss. S.M.S. Jafri who prepared maps for this project.

S.S.A. JAFRI

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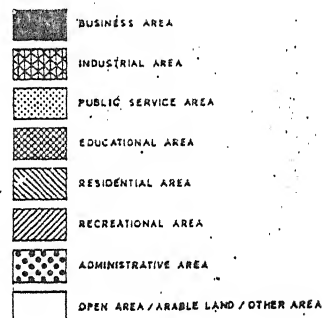
May 15, 2003

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- Offices of District Magistrates, Moradabad and Bulandshahr.
- District Statistical Offices, Moradabad and Bulandshahr
- Municipal Corporation, Moradabad and Municipal Board, Bulandshahr
- Town Planning Departments, Moradabad and Bulandshahr
- Moradabad Development Authority and Bulandshahr Khurja Development Authority
- District Urban Development Agencies, Moradabad and Bulandshahr
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- Senior Superintendent of Police offices of Moradabad and Bulandshahr
- Offices of Basic Shiksha Adhikari, Moradabad and Bulandshahr
- Offices of Inspector of Schools, Moradabad and Bulandshahr
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- Awas Vikas offices of Moradabad and Bulandshahr
- U.P. Pollution Control Board, Moradabad
- Library of Giri Institute of Development Studies, Lucknow

URBAN LAND USE



- 1 POLICE HOSPITAL
- 2 POST OFFICE
- 3 STATE BANK OF IOWA
- 4 COLLECTORATE
- 5 CIVIL LINE HOSPITAL
- 6 COMMISSIONER'S OFFICE
- 7 DISTRICT JAIL
- 8 MUNICIPAL BOARD OFFICE
- 9 PARKER INTER COLLEGE
- 10 HANCO DEGREE COLLEGE
- 11 H.A.S. DEGREE COLLEGE
- 12 BUS STATION
- 13 IO GAN
- 14 GOVERNMENT INTER COLLEGE
- 15 JAMA MASJID
- 16 D.R.M. OFFICE
- 17 RAILWAY STADIUM
- 18 RAILWAY HOSPITAL

URBAN AGGLOMERATION BOUNDARY...	
BOUNDARY : CONSTITUENT TOWN / VILLAGE	
RAILWAY LINE WITH STATION : BROAD GAUGE...	
NATIONAL HIGHWAY...	NH 24
STATE HIGHWAY...	SH 43
ROAD	
RIVER	

Note: Villages adjoining the urban boundary are shown by location code number and name.

BULANDSHAHR MUNICIPAL BOARD (DISTRICT BULANDSHAHR) **URBAN LAND USE**

200 0 200 400 600 800
METERS

MAU KHERA 167

From Meerut SH22

From Meerut

AKBARPUR 166

DOSTPUR 174

From Ghazalabad SH22

INDIA PUR 181

CHAGLI 198

CHAGLI 198

CHAGLI 198

CHAGLI 198

CHAGLI 198

CHAGLI 198

CHAGLI 198

CHAGLI 198

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- BUSINESS AREA
- INDUSTRIAL AREA
- PUBLIC SERVICE AREA
- EDUCATIONAL AREA
- RESIDENTIAL AREA
- RECREATIONAL AREA
- ADMINISTRATIVE AREA
- OPEN AREA / ARABLE LAND / OTHER AREA

Note - Villages adjoining the urban boundary are shown by location code number and name.

- MUNICIPAL BOARD BOUNDARY
- RAILWAY LINE WITH STATION : BROAD GAUGE.
- STATE HIGHWAY.
- ROAD
- RIVER
- NALA

- 1 MUNICIPAL BOARD OFFICE
- 2 TANSI OFFICE

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1.1.0 Background

1.1.1 The United Nations Conference on Environment and Development (UNCED) or the (Earth Summit) held in Rio de Janeiro in June 1992 was attended by 178 countries and there were 120 Heads of State. A large number of documents on various issues concerning 'mankind' and to 'save the earth' were prepared for global action. Action Programme given in Agenda 21 called upon the countries particularly developing countries to develop programmes under 'Governance for Sustainable Development'. Action programme under Agenda 21 covered different aspects like capacity building; fine tuning of existing institutional instruments; good governance; need for better policy formulation, improved planning and management of environment related matters of developed and developing countries; strengthening legal framework, etc. Target was set at five year intervals beginning from 1992 to achieve success on different aspects covered under the Agenda.

1.1.2 At the Habitat II Conference in Istanbul (1996) member countries of the United Nations committed themselves to implement the Habitat Agenda through policies and plans of action designed at each level in cooperation with all interested parties. All partners including local authorities, the private sector and community are asked to monitor and evaluate their own performance in working towards sustainable urban development and adequate shelter for all.

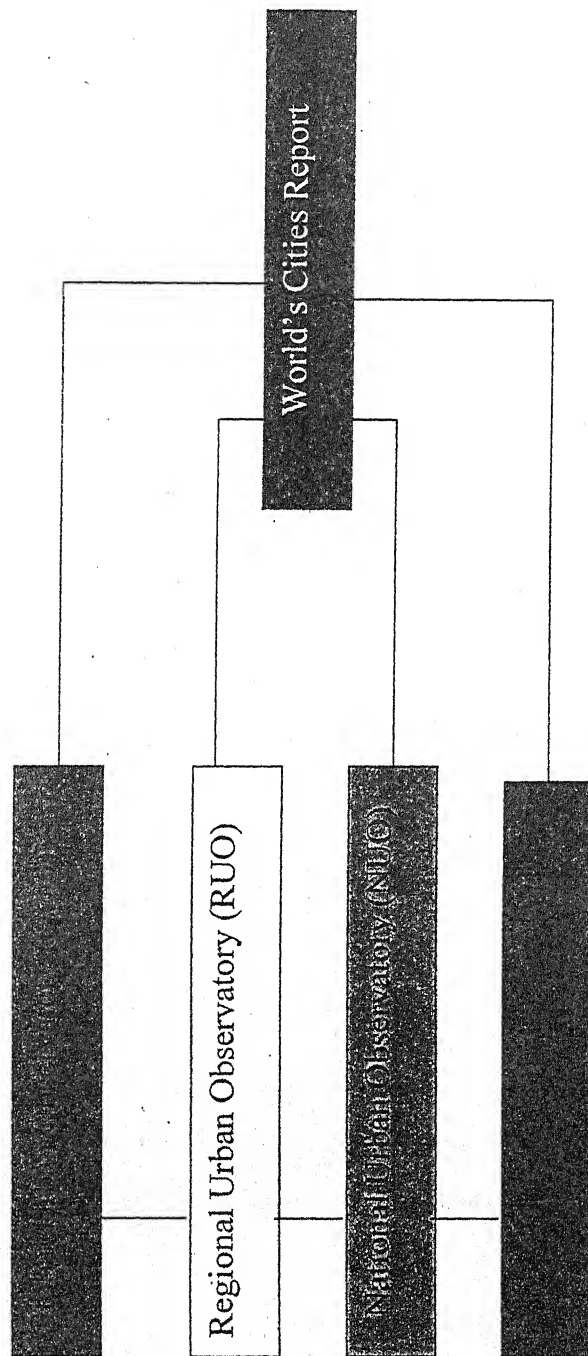
1.1.3 Member countries were handicapped for implementation of Habitat Agenda as most of the cities in developed and under developed countries face information crisis. Data available at city level is scattered and scanty, because, there are number of agencies holding data and each agency is under the control of a different authority. There is no coordinated effort to collect data from these agencies and compile them at one place.

1.1.4 In the Nairobi Conference, a need was felt to create a mechanism at city, country, regional and global level that would facilitate the compilation of urban information by designated agencies and support the process of regular monitoring and evaluation of the programmes in the implementation of Habitat Agenda. Member countries were directed to set up Urban Observatories at city and national levels.

1.2.0 Urban Observatory:

The Urban Observatory system is a world wide information and capacity building network to help implement the Habitat Agenda at the national and local level. The purpose is to help Governments, local authorities and civil society to improve the collection, management, analysis and use of information in formulating more effective urban policy. It is aimed to understand how cities work as social and economic systems and to use that knowledge for more effective national and local action planning.

Global Urban Observatory System



1.2.1

Objective:

The objective of the Urban Observatory System network are:

1. To stimulate broad based consultative processes to help identify and integrate urban information needs.
2. To build capacity for the collection, management and policy applications of urban information focusing on indicators and best practices.
3. To provide information and analysis to all stake holders for more effective participation in urban decision making.
4. To share information, knowledge and expertise using modern information technology and infrastructure.

1.2.2

Strategy:

The above stated objectives shall be realized through a global network of local, national and regional observatories (LUO, NUO and RUO). The GUO shall provide a framework for guidelines, tools and technical assistance to Urban Observatories to develop data base at their level to help urban policy makers and civil societies to improve urban environments. The major role and functions envisaged at the, National Urban Observatories (NUOs), Local Urban Observatories (LUOs) are as follows.

A. National Urban Observatories

Role:

- monitor national trends and conditions
- provide information to the national policy makers
- formulate a national urban policy framework, if it does not exist already

Functions:

- Provide a co-ordinating framework for the collection, analysis and application of urban indicators at the national and local levels
- Organize, in conjunction with other partners, national best practice competitions and exhibitions
- Organize training programmes for policy makers and technicians at the national and local levels, on the generation and use of empirical information
- Maintain an indicators programme to monitor implementation of the NPA
- Co-ordinate the assessment and provision of capacity-building resources for implementing, monitoring and evaluating NPA and LPAs
- Organize, with relevant partners at all levels, networks for training and peer-to-peer learning among agencies, local authorities and civic organizations engaged in
- improving the living environment
- Maintain an Internet homepage for providing civic society with information on the national urban policy and for reporting on activities of the NUO and its partners groups
- Produce a biennial State of the Nation's Cities report, including comparative analysis of indicators and presentation of best practices
- Conduct broad-based consultations to review or to formulate the National Plan of Action (NPA) in light of the commitments and recommendations of the Habitat Agenda and priorities expressed through consultative process.

B. Local Urban Observatories

Role

- Provide a platform for dialogue among policy makers, communities and the civil society through participatory approach for decision making
- Advocate participatory process for decision making
- Generate information on local themes and problems
- Encourage policy responses to locally felt needs and priorities

Functions:

- Work with partner groups to develop and apply appropriate indicators, indices and evaluation mechanisms for the urban areas and its communities
- Maintain management information systems and undertake evaluations and impact analysis at the request of local authorities and partner groups
- Build capacity for the generation, management, analysis and dissemination of urban information, including, empirical information, on a regular and consistent basis and to apply the information in decision making.
- Identify conditions, trends and priority issues through research and consultative processes involving local officials and organizations of civil society.
- Analyse and share lessons learned from on going experiences and good practices with other Local Urban Observatories.

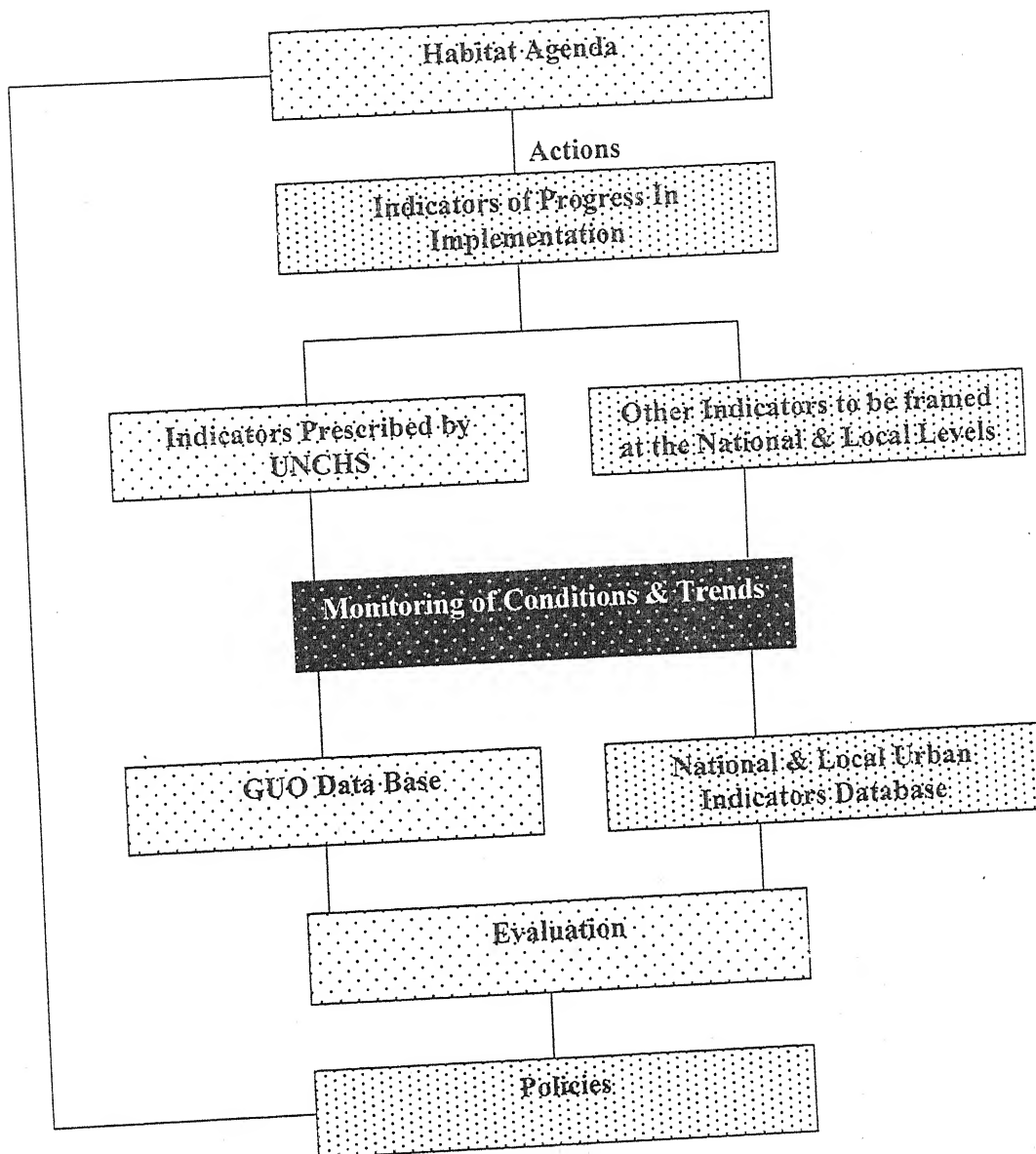
- Maintain a local Internet homepage and a news letter for providing civic society with information on the city and for reporting on activities of the LUO and its partner groups.
- Produce a biennial State of the City report, including comparative analysis of indicators and presentation of best practices.

Thus it may be seen that the emphasis both at NUO and LUO is given on (a) consultative process, (b) Internet, Homepage for collection and collation of information, (c) to decide local themes and (d) share best practices.

1.2.3 Urban Indicator Programme:

To compare urban environments among cities and countries, UNCHS recognized at the global level the importance of developing a uniform set of urban indicators using a relatively comparable methodology across the world. The programme is known as Urban Indicators Programme (UIP). Each member country was directed to establish Observatories at city and national level to develop UIP. This Agenda was promoted in Habitat – II (1996) and reiterated in Nairobi (1998). These urban indicators shall be developed for a few selected cities in the first instance and documented with methodology, scope and limitations of availability of data etc., along with documentation of best practices i.e. initiatives which have made outstanding contribution in improving quality of life in cities and communities, in the country. A report shall be submitted to the forthcoming Habitat Conference for monitoring 'Global Action Plan' of Habitat Agenda.

Operation Of Urban Indicators



1.2.4 Urban Indicators – Defined

An indicator is a measure that reflects trends, provides quantitative and qualitative information about a particular subject designed in response to well defined policy objectives. Indicators are tools for:

1. Assessing and comparing human settlement conditions between cities, within regions and world wide.
2. Assessing specific problems related to water, sanitation, sewerage, transport etc. within a country/city
3. Monitoring the implementation of urban policy at all levels.
4. Negotiation solutions with partners.

Indicators are tools for monitoring and implementation of the 'Global Action Plan' of Habitat Agenda.

1.2.5 Coverage of Indicators

The Indicators cover key areas of the Habitat Agenda such as

1. Shelter
2. Health
3. Transport
4. Energy
5. Water Supply and sanitation
6. Employment
7. Other aspects of urban sustainability
8. Empowerment, participation and local responsibilities.

For development of Urban Indicators, UNCHS has recommended the following parameters covering general background and six modules for coverage of above stated aspect.

1. **Background Data**
2. **Modules**
 - i. Socio-economic development
 - ii. Infrastructure
 - iii. Transportation
 - iv. Environment and Management
 - v. Local Authorities
 - vi. Housing

Under this broad coverage, 23 urban indicators and information on 9 qualitative data statements is required to be developed.

1.2.6 Selection Criteria for Indicators

Urban indicators help to measure the physical, economic and social conditions of the residents of a city. But the quality of life in different cities varies greatly due to natural, economic and social factors as well as human interventions. Therefore, urban indicators for cities/towns may also differ. UNCHS, therefore, laid down following broad guidelines in selection of Urban Indicators which may have usefulness for planners.

1. Policy-sensitive and policy relevant
2. Comprehensive Indicators package must be able to provide an immediate insight into the overall health of the subject matter say housing, transport, urban environment.
3. Cost-effective and timely collection based on easily generated/accessible data.
4. Measurable to be able to indicate the "magnitude" of the problem
5. Easily understood.
6. Include most disadvantaged groups, especially where the concern is on equity, down-marketing solutions, providing affordable programmes.

7. Change sensitive; Indicators must change as conditions change. Constant indicators serve little purpose as also highly volatile indicators would be difficult to compile and interpret.
8. Indicators, wherever possible, should be gender-specific.

1.3.0 National Urban Observatory for India

For implementation of UN Habitat Agenda, the Ministry of Urban Development and Poverty Alleviation decided to locate National Urban Observatory vide MOUD & UPA LETTER No.1-21015/7/2000-h-II dated 14.2.2001 in the Town and Country Planning Organization, New Delhi (TCPO). Accordingly NUO shall take steps for setting up Local Urban Observatories in each city of the country and develop urban indicators at local as well as at national levels by coordination of information collected at city/town level. For implementation of the programmes, it is essential to arrive at a National Standard Format for all of the LUO's to maintain uniformity in collection of information, so that indicators can be aggregated at National level. It is also essential to decide urban indicators useful for planning, decision making and to facilitate consultative process at local level and also to provide with the requirement of implementation of UN Habitat Agenda. It is equally important to decide the reference period for which data need to be collected.

1.3.1 Study Design

There are 5161 urban centers in India as per 2001 census. Due to paucity of time, manpower, technical skill and huge financial implications involved, it is not possible to cover all the urban centers in different states of the country under the UNCHS Programme. TCPO has therefore decided to take up pilot studies in 12 towns in some selected states of the country.

1.3.2 Objectives

The objectives of these pilot studies shall be

- a) To protest the devised questionnaire by assessing the type and periodicity of data available and generated in the urban centres of India.
- b) To raise an Information System of develop indicators in consonance with the requirements of Global Urban Observatory to facilitate monitoring the implementation of the Habitat Agenda.
- c) To identify the data gaps in Urban Information and devise ways and means to strengthen data base in Urban Centres in India.

1.3.3 Coverage

A questionnaire covering six key areas identified by UNCHS namely, shelter, social development and eradication of poverty, environmental management, economic development; governance and international cooperation, has been prepared by TCPO. Information on each aspect contained in questionnaire has been collected from various

agencies functioning in the city. Based on the local conditions, modifications were made in the Questionnaire. A specimen copy of designed questionnaire is at Annexure-III.

1.3.4 Reference Year

The intention is to make a data series in the selected Urban Centres. Since Census data for 1991 and 2001 is available, it was decided to use Census data. The data relating to physical, social and economic infrastructure, which is available from the primary agencies functioning in the city has been collected for 5 years i.e. w.e.f. 1996-1997 to 2000-01, wherever, possible.

1.3.5 Methodology

The success of a scheme depends on getting the most accurate information available. The required information has to be gathered from published data and the secondary sources as well as through interview of officers of various departments and organizations who are concerned with planning & development. Some city agencies do not publish data but hold information in their files. Information which may be useful for developing indicators need to be tapped. It is not possible to conduct preliminary or sampled survey in the short time; estimates, near to reality can be made by taking observations/ opinions of the knowledgeable persons.

UNCHS requires analysis of the status of women in human settlements but it is not easy because such data does not exist in our country. The questionnaire includes some aspects relating to gender perspective which has direct bearing on the development and socio-economic conditions. Such aspects may include female-male gap in

- School education
- Literacy
- Child mortality
- Life expectancy
- Formal participation in the number of elected and of nominated local bodies.
- Employment in formal and informal sectors

1.3.6 Format of Output

The final product shall be in the form of a report constituting basic data collected as per the Questionnaire and urban indicators developed for selected cities under the study of all the 6 Key Areas. Besides developing indicators the data gap, sources of available data, problems of non-availability of data and methodology adopted for estimation of required indicators needs to be included in the report.

1.3.7 Concept and Definitions

There are various terms used in the Questionnaire which need to be understood. The important terms used in the Questionnaire which need clarification/ explanation are given hereunder:

G.1

Total Area of the City

Total area means total surface area of the city which includes developed, undeveloped and non-developable area falling within the demarcated boundaries of the city.

Municipal Area

The defined urban area for planning or administrative purposes under the jurisdiction of the local body.

Urban Agglomeration

Defined as the city proper along with the sub-urban fringe and any built up, thickly settled area lying outside but adjacent to the city boundaries.

G.6

Household

A person or group of persons who make common provisions for food or other essential living and often share a common budget/kitchen. A group of people who eat one meal together daily may be considered a household. This definition includes domestic servants.

Poverty Line

Poverty line has been notified by the respective State governments targeting the specified income limit under the poverty alleviation programme in urban areas.

Labour Force

Labour force denotes economically active population comprising of all persons between the age group of 15 to 60 years of age who furnish the supply of labour for the production of economic goods and services.

Work Force

Work force constitutes all those persons who are employed in some gainful activities and those who are not employed but seeking work.

Main Workers

As per NSSO definition all those persons (as per their usual status) who were engaged in work in some gainful activity for 180 days or more in a year.

Marginal Workers

All those (as per usual status) who were engaged in work in some gainful activity for the period less than 180 days in a year.

Total Workers = Main Workers + Marginal Workers

City Product

The city product denotes gross domestic product of the city.

Informal Sector

The informal sector consists of persons engaged in the production of goods or services on small scale basis with little division of labour and employer – employee relationship (as there is no contractual arrangement with formal guarantee of employment). The informal sector includes all unregistered commercial/non-commercial enterprises that have no formal structure in terms of organization and operation.

2.1.0 Location and Importance

Moradabad and Bulandshahr cities are important district headquarters of most industrialized, urbanized and highly developed part of western Uttar Pradesh. Moradabad and Bulandshahr districts have common boundary, laying north and south respectively. Moradabad MC is located between $29^{\circ}00'N$. Latitude and $78^{\circ}75' E$. Longitude while Bulandshahr MB is located between $28^{\circ}50'N$. Latitude and $77^{\circ}75'E$ Longitude. Both the cities are located on smooth fertile land. Moradabad and Bulandshahr are well connected by road. From Moradabad, Delhi is 170 km., Lucknow 326 km., Meerut 80 km. Rampur 25 km and Bulandshahr via Sambal 120 km. Moradabad is connected by National highway number 24 and also it is well accessed by railway connecting Lucknow, Howrah, Delhi and Amritsar. Bulandshahr is well connected by road with Delhi which is 71 km., Hapur 31 km., Khurja 20 km. and Meerut 80 km. National highways number 18 and 12 pass through Bulandshahr. Though Bulandshahr is only 71 km. from Delhi by road but it is quite far as it is not on the main trunk of railway connecting Delhi. Howrah, Delhi trunk passes through Khurja which is 20 km. away from Bulandshahr. If 20 km. loop line connecting Bulandshahr with main trunk is constructed and some of the trains are diverted via Bulandshahr it may develop the city and give a lot of cushioning to overburdened Delhi. Moradabad and Bulandshahr are located in maximum wheat, sugarcane and good variety of rice producing area of India. Bulandshahr is a part and parcel of Delhi conurbation as it is within the national capital region.

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2.1.1 Towns in History:

During Akbar's reign Moradabad was established to be the capital of pargana called Chaupala. In 1624 the Governor of Sambhal Rustam Khan who revolted against Shahjahan and captured it and built a forte and named the Settlement as Rustam Nagar. But he feared the king's might and renamed it as Moradabad after the name of King's son Muradbaksh and since then this name is continuing. Moradabad is historical city where Mughal monuments in the forum of forte, mosques, tombs and palaces are still existing. Moradabad is famous from ancient period for the brass work, that is why it is called as 'Brass City'. Moradabad is also having many sugar mills. Till 1991 Moradabad was only Municipal Borad but in 2001 after the inclusion of Moradabad railway settlement colony it was declared as Municipal Corporation.

Bulandshahr is small town mainly serving as the District headquarter. Bulandshahr is located on the ruins of the ancient forte of Raja 'Ahvaran'. It is said that Mahmood Ghaznavi had attacked this forte several times and after winning it the settlement started within the premises of the forte. Perhaps the 'Buland' which means higher is replaced in place of 'Varan'. In Bulandshahr sugar mill and textile industries are located.

2.1.2 Physical Features

Both Moradabad and Bulandshahr cities are having almost the same altitude i.e. about 150 M. from sea level. The drainage system is well managed by the rivers and canals which flow from North to South-East. In Moradabad river Ramganga flows in North-east and river Gangan flows in the south-western part. In Bulandshahr the river Kali

flows which makes the boundary of north-east and eastern part of the city. A dry nala flows from north west to south-east within the municipal boundary of the city. Since these rivers flow from snow covered Himalayan ranges, they are perennial in nature.

2.1.3 Climate:

Moradabad and Bulandshahr cities are mostly, affected by summer monsoon rains and upto limited extent also by winter monsoon rains. Since monsoon period is quite short, the climate of these cities is continental type. During summers the maximum temperature goes beyond 40°C and minimum is about 25°C. Winters which are for shorter period the maximum temperature goes to about 21°C and the minimum about 5°C in both the cities. The average annual rain fall is about 800-900 M.M. in both the cities.

2.1.4 Soil & Vegetation

The topography around both the cities is uniform and homogenous. The entire area is under the influence of river Ganga, river Yamuna, the tributaries and offshoots of canals which have spread the alluvial soil all around. The area is well drained by water channels therefore they are hardly flooded. Moradabad and Bulandshahr Districts were having sufficient tropical deciduous forest till recently, but after the extensive and intensive cultivation for food grain and commercial crops, these valuable forests were destroyed and now there is hardly any forest. Along the rivers a bushy plants called 'Jhau' grows naturally and serves the purpose of making the thatch roofs.

2.1.5 Area

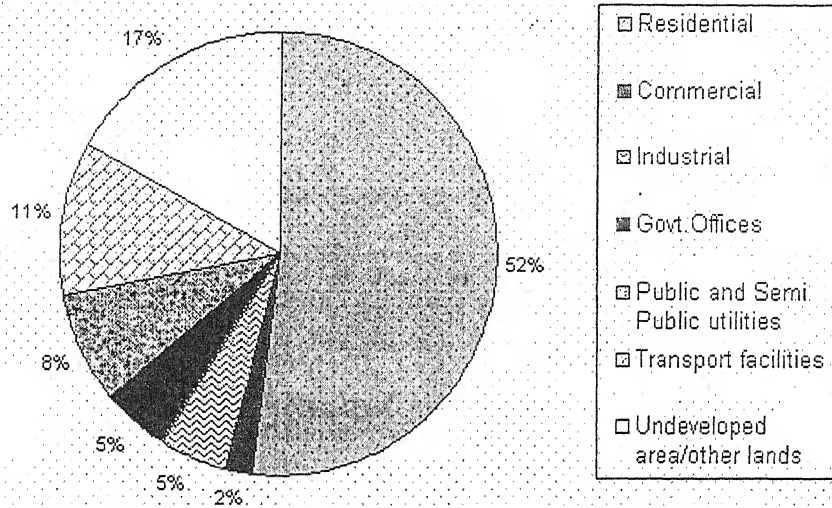
Moradabad being the major urban settlement where brass work is world famous also sugar industry is surviving on the raw material supplied from the rural areas. Moradabad also serves as a central place and growth pole for the surrounding region. Moradabad was municipal Board till 1991 and after that it was declared as Municipal Corporation. The Geographical area of Moradabad City was 34.17 sq. km. in 1991 which is estimated to be grown about 93 sq. km. in 2001.

Bulandshahr is a Municipal Board and is comparatively quite small town which works as administrative-cum-residential town, it also serves as a small service centre to a limited surrounding areas, as for higher services people visit Delhi which is nearby. The Geographical area of Bulandshahr town was 12.33 sq. km in 1991 which is estimated to be grown about 49.00 sq. km in 2001. If Bulandshahr is brought on the main trunk of Delhi-Howrah route then it may grow leap and bound.

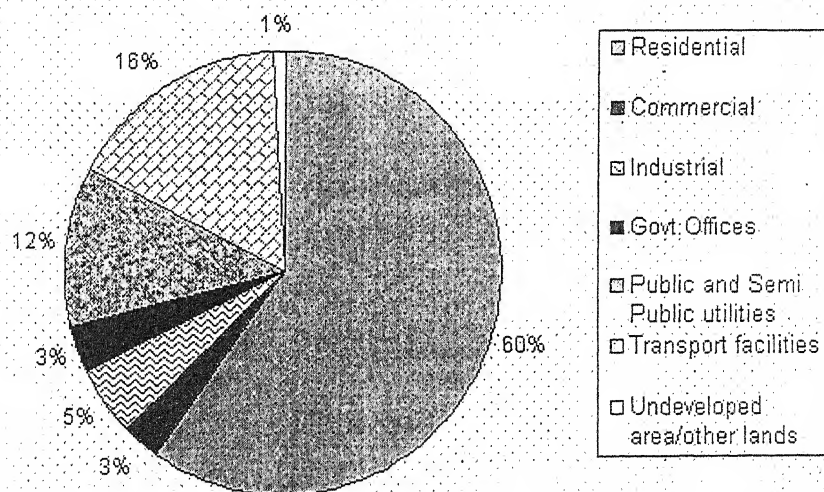
2.1.6 Land Use

For Moradabad and Bulandshahr cities master plans were prepared by Town and Country Planning Department for the period of 1982-2001 and 1989-2001 for planned development respectively, however for comparative analysis the uniform land use information is prepared for 1991 and 2001 for both the cities with the help of master plans and Municipal records. In both the cities proportionally maximum urban land is utilized for residential purposes and next to that comes transport facilities and public & semipublic utilities. The common features of both the land uses is that underdeveloped area/other lands has been drastically reduced from 1991 to 2001.

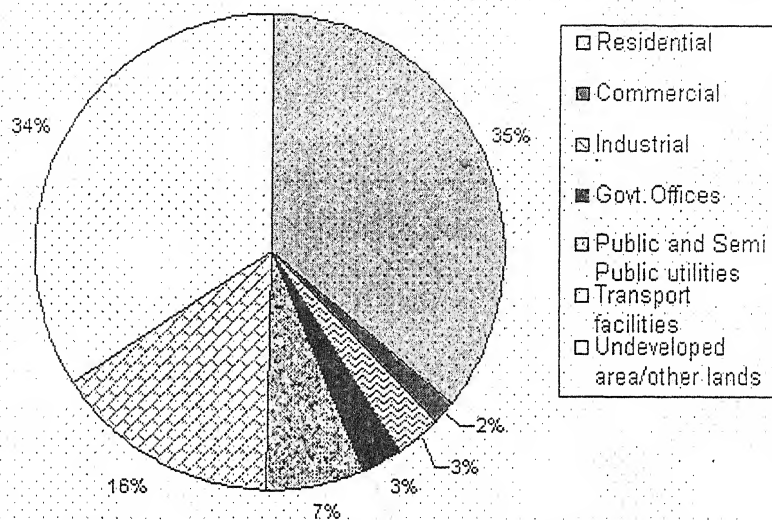
Land Use Of Moradabad MB-1991



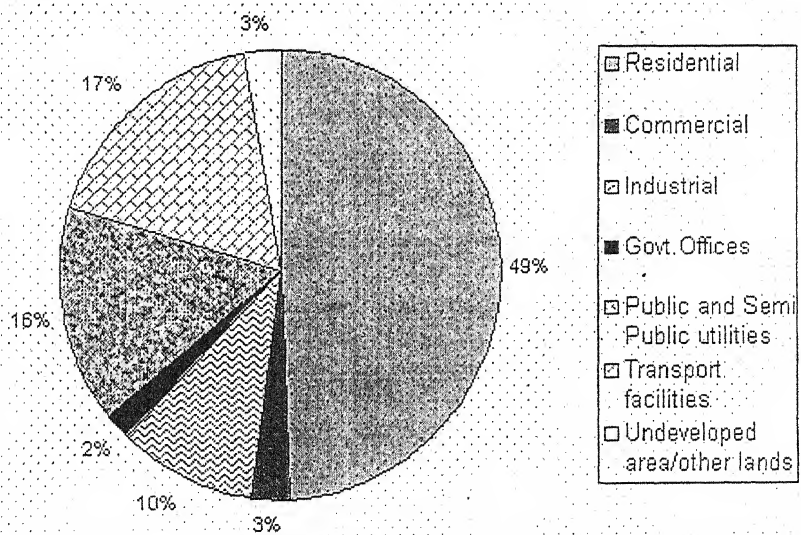
Land Use of Moradabad MC-2001



Land Use of Bulandshahr MB- 1991



Land Use of Bulandshahr MB 2001



2.2 Demographic Profile

2.2.1 Population Size & Growth

According to census date the population of Moradabad was 75,082 in 1901 which grew to 6,41,240 in 2001, which is 754.45 per cent growth rate. The maximum decadal

Table 1 Growth Of Population - Moradabad MC and Bulandshahr MB

Year	Moradabad MC		Bulandshahr M.B	
	Population	Decadal Growth Rate	Population	Decadal Growth Rate
1941	142414	+28.80	29701	+19.29
1951	154018	+8.14	37496	+26.24
1961	180100	+16.93	44163	+17.78
1971	258590	+43.58	59505	+34.73
1981	330051	+27.63	103436	+73.82
1991	429214	+30.04	127201	+22.97
2001	641240	+49.39	176256	+38.56

Source : Census of India, 1991 & 2001.

Note: Moradabad became Municipal Corporation in 2001, when Moradabad Railway settlement was added with Moradabad Municipal Board, Moradabad was Municipal Board till 1991.

growth rate was during 1961-1971 and 1991-2001 which are 43.58 and 49.39 per cent respectively. During 1941-1951 the decadal growth rate was abnormally low i.e., 8.14 per cent which is because a huge migration to Pakistan. In case of Bulandshahr the significant decadal growth rate was found during 1971-1981 i.e., 73.82 per cent. In 1901 Bulandshahr's population was 18,959 which reached 1,76,256 or 829.67 per cent in 2001.

2.2.2 Population Density:

In 1991 the population density of Moradabad is 125.61 persons/Ha., but according to estimated area in 2001 the population density person/Ha. comes to be 68.95. Similarly in Bulandshahr the population density was 103.16 persons/Ha. in 1991 which reduced to 35.97 persons/Ha. in 2001. (In absence of census area in 2001, it has been estimated with the help of Municipal officials and field observations)

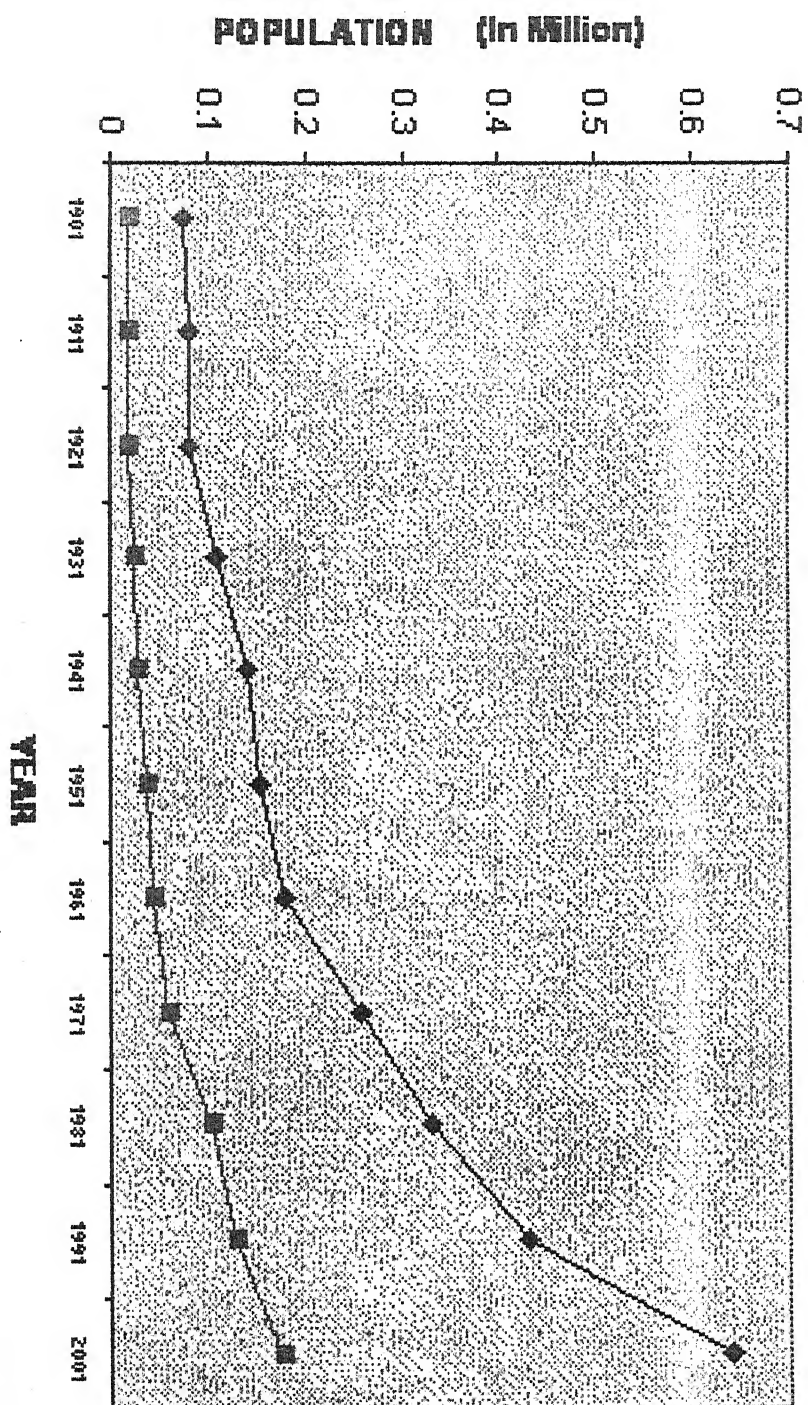
2.2.3 Sex Ratio:

The sex ratio of Moradabad and Bulandshahr was 873 and 887 females per 1000 males in 1991 respectively. In 2001 sex ratio i.e., females per 1000 males have increased to 885 in Moradabad and to 894 in Bulandshahr. The increasing trend of Sex-ratio during 1991 and 2001 is quite opposed to overall trend of Uttar Pradesh.

2.2.4 Literacy Rate:

The male literacy rate of Moradabad and Bulandshahr in 1991 was 62.75 and 74.07 per cent respectively which has significantly increased to 66.04 and 81.57 per cent respectively in 2001. In case of female literacy in Moradabad and Bulandshahr it was 51.15 and 53.68 per cent respectively, which also increased to 56.23 and 64.69 per cent respectively in 2001. (While calculating the literacy rate the 0-6 years age group children were subtracted)

POPULATION GROWTH



2.3.0

Economic Base

Moradabad is not only located on the national map but also it is famous internationally for its fine work of Brass. It is traditional industry of Moradabad which is its unique hegemony besides its brass work due to rich and fertile land of adjoining area of Moradabad. Moradabad is one of the main marketing and processing center of foodgrain and sugar cane. Moradabad is also in commanding position in most of the public utility services in the western Uttar Pradesh.

Bulandshahr which is located under the shadow of Delhi Metropolis it remained stagnated in terms of population and activities. Bulandshahr is an administrative town with the exception of few sugar cane factories located in urban areas. The hinterland of Bulandshahr is highly fertile but it could not develop like Moradabad. Bulandshahr mainly serves as the residential town for the rich, especially belonging to Delhi. The key of its growth depends upon rapid rail transport system connecting with Delhi.

2.4.0 Occupational Structure:

In both the cities, Moradabad and Bulandshahr the work force participation rate has slightly reduced i.e., 0.65 and 0.27 per cent during 1991-2001, which was currently 26.90 and 25.70 per cent respectively. The distribution of workers in the three broad sectors reveal the cities are predominantly service centres with 59.06 per cent in Moradabad and 65.08 per cent in Bulandshahr of their total workers engaged in tertiary sector. In primary and secondary sectors the workers engaged are proportionately 3.82 and 37.12 per cent in Moradabad and 6.73 and 28.19 per cent in Bulandshahr. It is significant to note that in Moradabad, the proportion of workers engaged in secondary sector is reducing, whereas the same in Bulandshahr, it is increasing.

2.5.0 Crime Statistics:

There is one theft among 2,326 persons in Moradabad and 1,429 persons in Bulandshahr. There is one robbery case on 25,000 persons in Moradabad and 33,333 persons in Bulandshahr. Similarly there is one murder reported among 20,000 persons in Moradabad and on 11,111 persons in Bulandshahr. There is one crime against women among 3333 persons, whereas on 2,703 persons in Bulandshahr.

2.6.0 Infrastructure

In 1999-2000, (at 1993-94 prices) the Gross National Product was estimated to be Rs.2,597 and Rs.2509 crores for Moradabad and Bulandshahr respectively. The per capita income during 1999-2000 (at 1993-94 prices) was Rs.7,403 and Rs.8,693 for Moradabad and Bulandshahr respectively. The houseless households are showing an

increasing trend during 1991-2001 in both the cities, which are 1.90 and 0.56 per cent in Moradabad and Bulandshahr respectively in 2001. Similarly the proportion of below poverty line households are increasing in both Moradabad and Bulandshahr, which are 1.47 and 2.50 per cent respectively.

2.6.1 Education :

There has been mushrooming of private schools and colleges besides private Institutions in Moradabad and Bulandshahr which is a direct reflection of overall privatization trend. The total enrolment in government and private institutions during 2000-2001 belonging to primary, secondary and higher education is 97,601 in Moradabad and 36,427 Bulandshahr. In both the cities in primary, secondary and higher education the male enrolment is higher than the females. The enrolment of students in private institutions is too high than the government institutions.

2.6.2 Health:

There are 5 hospitals in Moradabad in which 3 belong to government and 2 belong to private. In Bulandshahr also there are 5 hospitals, 4 belong to government and 1 to private. In Moradabad all the 5 hospitals are allopathic whereas in Bulandshahr 3 hospitals are allopathic and 2 are in other category. In Moradabad and Bulandshahr there are number of allopathic, ayurvedic and homeopathic dispensaries, among them maximum belong to private organizations.

2.6.3 Road & Transportation

The transport system of Moradabad is extremely polluted. Bareilly to Delhi, Kashipur and Kanth roads pass through the most congested parts of Moradabad which make frequent traffic jams in absence of any by pass. Residential, industrial and commercial land uses are mixed, one due to which pedestrians, bycycle, rickshaw, scooter, car, truck and hand cart traffic make quite slow movement. There is no transport city and transport agencies park their trucks on road sides. Most of the roads are narrow and insufficient for easy traffic flow. Mandi, Chowk crossing, Budh Bazar Chauraha, Tiraha Ganj Bazar, Hospital road, Gurhatti Chauraha, Amroha gate Chauraha, Station road Tiraha are extremely crowded and frequent accidents are reported.

Khurja-Aligarh road pass from the southern part of Bulandshahr and from eastern part of the city Shikarpur, Anupshahar and Garh Mukteshwar roads pass. Meerut to Aligarh and Agra road pass from the out-skirt of the city. Meerut to Narora road passes through the city centre. From Qatle-Aaam crossing upto river kali bridge road is quite narrow. Even the river Kali bridge is quite old and narrow which makes frequent jams. Commercial complexes, vegetable mandi, wholesale and retail shops are located on these narrow roads which make crowded and slow traffic movement. Meerut Bus Stand and government Bus Stand are situated in crowded localities, which are unplanned and make congestion and air pollution. There is no provision for bus parking or for parking of other heavy and medium vehicles. The roads which are under the municipal care in 2001 are as follows:

	<u>TYPE OF ROAD</u>	<u>LENGTH KM.</u>
1.	Pucca Moradabad	246.91
	Bulandshahr	178.11
2.	Kuccha Moradabad	46.71
	Bulandshahr	30.30
3.	Semi Pacca Moradabad	26.61
	Bulandshahr	18.95

2.6.4 Water Supply

In both Moradabad MC and Bulandshahr MB the main source of water supply is tube-well, besides the hand-pumps. Since the ground water is sufficient, tube-wells are installed by Jal Nigam in most of the major localities where water is supplied from the over-head tanks through the network of pipes. In Moradabad net availability of water was 58.8 MLD in 1996-97 which rose to 88.2 MLD in 2000-01. Similarly per capita supply rose from 106 LPCD to 138 LPCD during 1996-97 and 2000-01, in which water in other than domestic use is also included. In Bulandshahr net availability of water was 9 MLD during 1996-97 which has risen to 12.6 MLD in 2000-01 and per capita supply was 57 LPCD and 79 LPCD in both years respectively. In Bulandshahr tap water supply is quite acute, even people have to go for fetching the water from distant places.

2.6.5 Electricity

Total electricity supply in Moradabad was 342.740 MKWh during 1996-97 which has risen to 460.418 MKWh in 2000-01, when per capita consumption was 376.95 KWh which increased to 413.92 KWh respectively by special care of power department in same years. Moradabad power losses are reported to be quite high. In Bulandshahr total electricity supply was 214.482 MKWh in 1996-97 which rose to 234.941 MKWh in

2000-01, where as per capita consumption in the same years decreased from 1,181.02 KWh to 1067.40 KWh due to fast population growth.

2.6.6 Telecommunication

In Moradabad average total telephone connections per 1000 population are 55.22 where as in Bulandshahr they are 170.26. Public telephones (PCO) in Moradabad are 1.49 per 1000 population where as in Bulandshahr it is 7.15. Frequency of telephone faults are too high in Moradabad in comparison to Bulandshahr. Mobile connections are fast increasing day by day. On every 25,000 population, there is one Post Office in Moradabad, where as in Bulandshahr it is one P.O. on every 20,000 population.

2.6.7 Drainage and Solid Waste Management

(a) Drainage

Moradabad and Bulandshahr cities and their adjoining areas are gifted with gentle slopes from North to South and South-east. In Moradabad due to encroachments on open drains, water is choked and it flows on roads. Major drains either end in river Ram Ganga towards South-East or in river Gangan towards South. In Bulandshahr also drainage system is through open drains which generally over flow due to their narrowness. Main drains of Bulandshahr flow in river Kali. In both cities due to absence of proper and sufficient drains, rain water generally stagnates during rainy season which creates an absence.

(b) Sewerage System

Sewerage System in both the cities is almost either absent or obsolete and negligible. In Moradabad old sewer line is unusable and Baradari, Nawabpura, Faizganj, Peergaon and Maqbara sewer line is renewable. Only very limited sewer line is functional. In Bulandshahr so-far there is no sewerage and there is a Jal Nigam plan for a sewerage line from Bhur Chauraha by-pass road to Qatle Aam crossing road.

(c) Solid Waste Management

During 2000-01 in Moradabad, about 300 tonnes solid waste was generated daily and disposed off by 29 vehicles in open dumping grounds in adjoining areas. Majority of Moradabad Municipal Corporation employees were engaged in street cleaning. In Bulandshahr during 2000-01 about 32 tonnes of solid waste was generated daily and disposed off by 8 vehicles to adjoining dumping grounds. Majority of Bulandshahr Municipal Board employees are engaged in street cleaning.

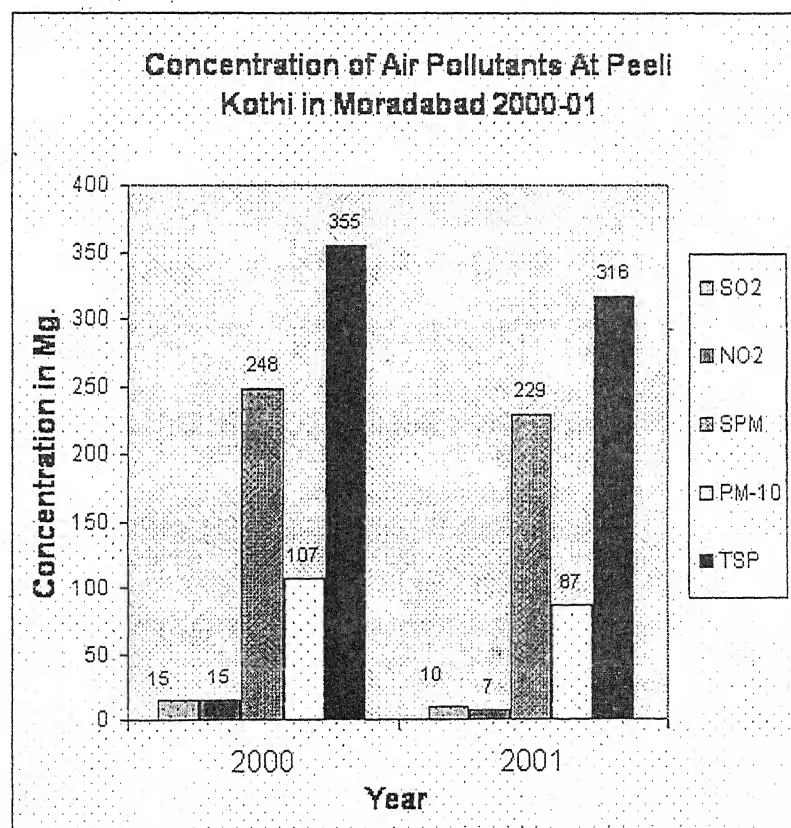
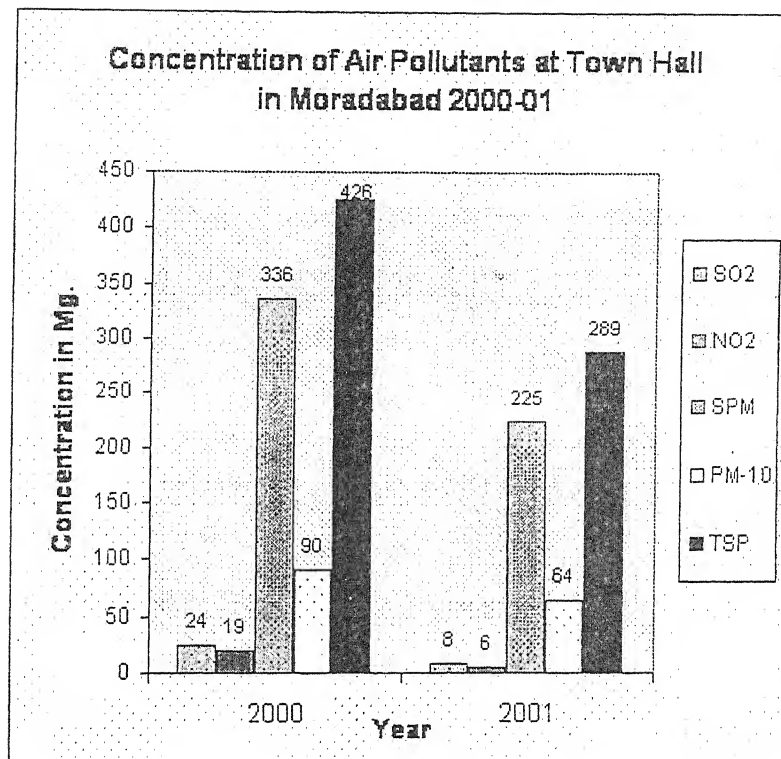
2.6.8 Community Facilities

In Moradabad there are 10 Cinema halls in which 8450 seats are available. There are 17 corporation gardens, 4 community halls 1 corporation play ground and 1 public library. Public toilets and Sulabh Sanchalaya are 20 and 6 respectively. In Bulandshahr, there are 8 cinema halls where about 4,500 seats are available. There are 8 Municipal gardens, 2 community halls, 1 Municipal stadium and 3 public libraries. In Bulandshahr, there are 2 clubs also. Public toilets and Sulabh Sauchalayas are 14 and 7 respectively in Bulandshahr.

2.7.0

Environment

Almost all the forest of adjoining areas of Moradabad and Bulandshahr are cleared for agriculture. In cities few park spaces are left without proper maintenance. Only partly government and private premises are maintaining some greenery. Increasing traffic volume on the roads, poor drainage system, absence of sewerage system, encroachments on parks, open spaces and pavements, violation of land use, unplanned private colonies and houses have created an environmental chaos. According to U.P. Pollution Control Board, Town Hall area of Moradabad was most air polluted in the year 2000 but in 2001 the overall air pollution in Peeli Kothi area has comparatively increased. For Bulandshahr no air-pollution data could be available.



2.8.0

Governance

It is an important function to govern the city from planned view to see that the city is maintaining a sustainable growth. City is managed in all aspects of its normal functioning and reasonable resources are mobilized in order to carry on day to day activities independently. It is important to throw light on some of the agencies which are responsible for city's functioning which are stated below in brief:

- (i) (a) **Municipal Corporation** : Moradabad was a Municipal Board till 1991 census and in 2001 it is recorded as a Municipal Corporation when the Moradabad Railway Settlement was merged.
- (b) **Municipal Board** : Bulandshahr is a Municipal Board, which is also a part of National Capital Region.

The main function of Municipal Corporation and Municipal Board are:

- a. Improvement and maintenance of internal city roads.
- b. Construction and maintenance of city drainage system and cleaning of roads and streets.
- c. Management of street lights.

Presently functions of Moradabad Municipal Corporation and Bulandshahr Municipal Board are shared by other agencies, but they are hardly coordinated. The main agencies engaged in the development, management and provision of basic physical and social infrastructure besides Municipal Corporation/Municipal Board are:

(ii) **District Urban Development Authority (DUDA)** : A subsidiary of Moradabad Municipal Corporation and Bulandshahr Municipal Board, engaged in implementation of central as well as state schemes in cities including management and improvement of slums. It gets funds under the Plan Schemes while Moradabad Municipal Corporation and Bulandshahr Municipal Board are deprived of any such reliable funds.

(iii) **State Rural Engineering Department** : Though the main task of this department is to provide irrigation facilities in rural areas, but it is engaged in construction of roads and other works in cities.

(iv) **Zila Parishad** : It also takes part mainly in construction works in municipal jurisdiction of cities, when it's function is to take care of infrastructure in rural areas.

(v) **Development Authorities**

Moradabad Development Authority (MDA) and Bulandshahr Khurja Development Authority (BKDA): MDA was established in 1981 and its main function is to make plan for residential colonies under Master Plan, construction of residential houses and approve the house plans according to building bye-laws. Despite of this authority most of the construction work during 1981-2001 had violated the Master Plan and building bye-laws. Bulandshahr Khurja Development Authority (BKDA) was established in 1987. Khurja is a small industrial town at a distance of about 20 Km. from Bulandshahr was included to form one development authority for convenience. The function of BKDA is the same as stated above for MDA.

(vi) **Government Departments** : Government Departments, may be central or state like CPWD, PWD, Tourism, Post and Telegraph, irrigation and forest etc. are also engaged in construction works. These departments only submit their plans to Development Authority and without getting approval, they construct their projects, thus there is no effective control of Development Authorities over them.

(vii) **Jal Nigam** : For potable water supply, Jal Nigam is the state agency, but it also takes up the construction work which some times over rules the Development Authorities.

Resource Mobilization:

The resource mobilization by Moradabad Municipal Corporation and Bulandshahr Municipal Board are not keeping pace with the requirement of funds for growing expenditure. Besides the Government grants to these municipal bodies whose their own resources depend upon taxes and income from property and other sources which are not growing as fast as the rate of the growth of expenditure. For example the income from taxes, from property and other sources in Moradabad was Rs.367.60 lakh during 2000-01 where as Moradabad MC had spent only on salary and wages Rs.1021.52 lakh in 2000-01. In case of Bulandshahr income from taxes, from property and other sources was Rs.131.90 lakhs in 2000-01 but the expenditure on salary and wages was Rs.378.20 lakhs in 2000-01. In fact the growing cost of expenditure of Moradabad MC and Bulandshahr MB is mainly met by Government Grants which is ever increasing, but the question is how long and how far? The Government grants for Moradabad MC and

Bulandshahr MB where Rs.976.32 lakhs and Rs.319.28 lakh respectively during 1998-99 which grew to Rs.1149.37 and Rs.328.36 lakh respectively in 2000-01. For covering all the houses to get the house tax, the Government has implemented the scheme for self assessment of house tax which is supposed to be paid voluntarily on time but it is yet to get momentum of compliance.

2.9.0 International Cooperation

The growing demand in international market of Brass work and decoration pieces of Brass and other metals for which Moradabad (*Pital Nagri*) is famous. Brass Corporation has been set up in Moradabad for export purposes.

2.10 Community Participation

Under the new trend in both Moradabad MC and Bulandshahr MB some voluntary organizations have initiated the sanitary, health and other community assistance programmes which are yet to be assessed.

2.11 Housing:

According to Census data of 1991 there were 65,335 and 20,305 households in Moradabad and Bulandshahr respectively which are ex estimated to be increased to 1,06,873 and 30,308 households respectively in 2001. In comparison to households number of dwellings are less therefore quite a good proportion of houseless households exist. During 1991 there were 59,295 and 19,750 dwellings in Moradabad and Bulandshahr respectively which grew to 96,993 and 30,137 dwellings respectively in 2001. In 2001 according to households about 10,000 dwellings are required in

Moradabad and about 200 dwellings are required in Bulandshahr. In fact since so many decades the backlog of housing scarcity has created a cumulative effect. Unless practically viable steps are not taken, housing problem in no way is going to be solved. Majority of the colonies and constructed houses have violated the land use and building bye laws. The only solution is that development authorities should engage themselves in plotting the area meant for residential purposes and providing the services/facilities and the multiple house plans for easy public use instead of spending energy in constructing the houses for few. In this way people of various income groups will be able to build their own dwellings, may be in phases.

2.12 Slums

In Moradabad and Bulandshahr there were 60 and 26 notified slums during 2000-01, whereas there were 13 and 5 slums unnotified respectively. As per Municipal information in Moradabad and Bulandshahr about 13.90 and 30.52 per cent population in 2000-01 respectively lived in slum areas.

DATA INVENTORY

General Background
Table 2 Location & Climate

	Location/Climate	Moradabad MC	Bulandshahr MB
1.	Latitude	29°. 00' N	28° 50'N
2.	Longitude	78°75' E	77°75'E
3.	Altitude (in metres)	150	150
4.	<u>Summer Temperature</u>		
	(a) Maximum	40.0°C	44.9°C
	(b) Minimum	25.0°C	25.0°C
5.	<u>Winter Temperature</u>		
	(a) Maximum	21.0°C	21.0°C
	(b) Minimum	8.0°C	5.0°C
6.	Av. Rainfall/year(in mm)	944.3mm	814 mm

Source: (i) District Census Handbooks & World Atlas, OXFORD.

Table 3 Area And Demography

	(1) Area	Unit	Year	
			1991	2001
(a)	a) Moradabad MC	Sq.km.	34.17	93.00*
	b) Bulandshahr MB	Sq.km.	12.33	49.00*
	(2) Land Use	Unit	1991	2001
	Moradabad MC			
	i) Residential	%	52.00	60.10
	ii) Commercial	%	2.00	2.65
	iii) Industrial	%	5.00	4.96
	iv) Govt. offices	%	5.00	3.48
	v) Public & Semi-public utilities	%	8.02	11.58
	vi) Transport facilities	%	11.00	16.29
	vii) Undeveloped area/other lands	%	16.98	0.94
	Bulandshahr MB			
	i) Residential	%	35.90	49.52
	ii) Commercial	%	1.50	2.62
	iii) Industrial	%	3.20	10.20
	iv) Govt. Offices	%	3.0	1.7
	v) Public & Semi-public utilities	%	6.8	15.58
	vi) Transport facilities	%	15.5	17.49
	vii) Undeveloped area/other lands	%	34.10	2.89
	(3) Area Under Conservation		N.A.	N.A.
(b)	Demography			
1.	Population	Unit		
	a) Moradabad MC			
	Male	Lakhs	2.29	3.40
	Female	Lakhs	2.00	3.01
	Total	Lakhs	4.29	6.41
	b) Bulandshahr MB			
	Male	Lakhs	0.67	0.93
	Female	Lakhs	0.60	0.83
	Total	Lakhs	1.27	1.76

Table 3 Continued.....

2.	Decadal Growth of Population		Unit	1981-91	1991-2001
	a) Moradabad MC		%	30.04	49.39
	b) Bulandshahr MB		%	22.97	38.56
3.	Age Distribution			1991	2001
	a) Persons below age of 14 yrs.				
	Moradabad MC		%	41.07	39.02*
	Bulandshahr MB		%	40.12	38.12*
	b) Persons above age of 60 yrs				
	Moradabad MC		%	4.73	5.20*
	Bulandshahr MB		%	5.33	5.86*
4.	Population Density				
	Moradabad MC		Persons/Sq.Km.	12561	6895*
	Bulandshahr MB		Persons/Sq.Km	10316	3597*
5.	Households				
	Moradabad MC		No.	65335	106873*
	Bulandshahr MB		No.	20305	30308*
6.	Average Household Size				
	Moradabad MC		No.	6.57	6.00*
	Bulandshahr MB		No.	6.26	5.82*
7.	Sex Ratio (MC)	Moradabad MC	F/1000M	873	885
		Bulandshahr MB		887	894
8.	Literacy Rate				
	Male	Moradabad MC	%	62.75	66.04
		Bulandshahr MB		74.07	81.57
	Female	Moradabad MC	%	51.15	56.23
		Bulandshahr MB		53.68	64.69

Source: Census of India, 1991 and 2001 and Master Plans, of Moradabad 1982-2001 and Bulandshahr 1989-2001, Moradabad Municipal Corporation and Bulandshahr Municipal Board.

* Figures are estimated

Table 4 Socio-Economic Profile

Sl.No.		Unit	Moradabad MC 1999-2000		Bulandshahr MB 1999-2000		U.P. 1998- 1999	India 1998-1999
1.	Gross National Product (at 1993-94 prices)	Rs. Crores	2596.67		2508.92		100877	9499525
2.	Per Capita Income (at 1993-94 prices)	Rs.	7842.55		8693.42		6117	9739
3.	<u>Houseless Population</u>		Moradabad MC		Bulandshahr MB			
			1991	2001	1991	2001		
	Male	No.	4242*	6507*	237*	396		
	Female	No.	3701*	5879*	293*	490		
	Total	No.	7943*	12186*	530*	886		
4.	Houseless Households	No.	1209	2031	102	170		
5.	Women Headed Households	No.	6207*	10153*	1929*	2887		
6.	Population Below Poverty Line	No.	5487	12376	2558*	4412*		
7.	BPL Households	No.	792	1569	406*	758*		
8.	BPL Households (% to total HHs)	%	1.3*	1.5*	2.0*	2.5*		
9.	<u>Work Force</u>							
	(a) Main Workers	No	117022	155299	32292	42180		
	(b) Total Workers	No	118239	171960	33032	45320		

Table 4 Continued.....

	(c) Work Force Participation	%	27.55	26.91	25.97	25.70		
10.	(d) Sectoral Distribution of Main Workers							
	(i) Primary	%	4.24	3.82*	8.93	6.73*		
	(ii) Secondary	%	41.34	37.12*	22.82	28.19*		
	(iii) Tertiary	%	54.42	59.06*	68.25	65.08*		
11.	Vital Statistic		Year					
				1997	1998	1999	2000	2001
	(a) Birth Rate	Moradabad MC	per 1000 population	19.78	17.96	19.61	15.69	15.00
		Bulandshahr MB		15.20	15.31	14.80	15.75	15.01
	(b) Death Rate	Moradabad MC		4.10	5.88	4.40	4.84	4.74
		Bulandshahr MB		5.19	6.67	5.16	5.66	5.65
	(c) Infant Mortality Rate	Moradabad MC		27.5	24.0	20.0	10.0	10.0
		Bulandshahr MB		34.81	27.23	23.46	11.69	11.92
12.	Crime Statistics							
	(a) Theft	Moradabad MC	No.	274	358	323	271	274
		Bulandshahr MB		102	114	132	93	124
	(b) Robbery	Moradabad MC		26	48	24	15	28
		Bulandshahr MB		6	9	18	10	6
	(c) Murder	Moradabad MC		50	58	41	35	31
		Bulandshahr MB		20	20	23	11	15
	(d) Crime against women	Moradabad MC		221	155	196	191	193
		Bulandshahr MB		40	38	34	32	65

Source : Census of India, 1991, 2001; Moradabad Municipal Corporation ; Bulandshahr Municipal Board; SSP offices of Moradabad and Bulandshahr ; C M O office of Moradabad and Bulandshahr ; District Economic & Statistic Office ,Yojna Bhawan Lucknow.

Table 4 A Indicators: Socio-Economic

Sl.No.		Unit	Moradabad MC		Bulandshahr MB		U .P.	India
			1999-2000		1999-2000		1998-99	1998-99
1.	Gross National Product (at 1993-94 prices)	Rs.Crores	2596.67		2508.92		100877	9499525
2.	Per Capita Income (at 1993-94 prices)	Rs.	7842.55		8693.42		6117	9739
			Moradabad MC		Bulandshahr MB			
3.	Houseless Households	% to total HH	1991	2001	1991	2001		
			1.85	1.90	0.50	0.56		
4.	Houseless Population	% to total pop	1.85	1.90	0.50	0.56		
5.	Below Poverty Line Households	% to total HH	1.21	1.47	2.00	2.50		
6.	BPL Population	% to total pop.	1.28	1.93	2.00	2.50		
7.	Workforce Participation Rate	%	27.55	26.9	25.7	25.97		
8.	Sectoral Distribution of Main Workers							
	(i) Primary	%	4.24	3.82*	8.93	6.73*		
	(ii) Secondary	%	41.34	37.12*	22.82	28.19*		
	(iii) Tertiary	%	54.42	59.06*	68.25	65.08*		
				1997	1998	1999	2000	2001
9.	Birth Rate	Moradabad MC	per 1000 population	19.78	17.96	19.61	15.69	15.00
		Bulandshahr MB		15.20	15.31	14.80	15.75	15.01
10.	Death Rate	Moradabad MC		4.10	5.88	4.40	4.84	4.74
		Bulandshahr MB		5.19	6.67	5.16	5.66	5.65
11.	Infant Mortality Rate	Moradabad MC		27.50	24.00	20.00	10.00	10.00
		Bulandshahr MB		34.81*	27.23*	23.46*	11.69*	11.92*

Table 4 -A Continued.....

12.	Crime Statistics							
	(a) Theft	Moradabad MC	per 1000 population	0.49	0.62	0.54	0.44	0.43
		Bulandshahr MB		0.65	0.71	0.79	0.54	0.70
	(b) Robbery	Moradabad MC		0.05	0.08	0.04	0.03	0.04
		Bulandshahr MB		0.04	0.06	0.11	0.06	0.03
	(c) Murder	Moradabad MC		0.09	0.10	0.07	0.06	0.05
		Bulandshahr MB		0.13	0.12	0.14	0.07	0.09
	(d) Crime against women	Moradabad MC		0.40	0.27	0.33	0.31	0.30
		Bulandshahr MB		0.26	0.24	0.21	0.19	0.37

Table 5 Education

(1) Primary Education										
No. of Students										
Year	City	Government			Private			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1996-97	Moradabad MC	6336	5102	11438	13953	14098	28051	20289	19200	39489
	Bulandshahr MB	1373	1305	2678	6954	6798	13752	8327	8103	16430
1997-98	Moradabad MC	6816	5641	12457	14787	15346	30133	21603	20987	42590
	Bulandshahr MB	1406	1373	2779	7924	7542	15466	9330	8915	18245
1998-99	Moradabad MC	7225	6585	13810	15003	15460	30463	22228	22045	44273
	Bulandshahr MB	1463	1441	2904	8789	7899	16688	10252	9340	19592
1999-00	Moradabad MC	7649	6647	14296	17059	15638	32697	24708	22285	46993
	Bulandshahr MB	1491	1463	2954	8937	8484	17421	10428	9947	20375
2000-01	Moradabad MC	7669	6674	14343	18037	16189	34226	25706	22863	48569
	Bulandshahr MB	1510	1488	2998	9952	8862	18814	11462	10350	21812
Year	City	No. of Schools			No. of Teachers			No. of Rooms		
		Govt.	Pvt.	Total	Govt.	Pvt.	Total	Govt.	Pvt.	Total
1996-97	Moradabad MC	84	198	282	298	689	987	274	891	1165
	Bulandshahr MB	27	80	107	94	394	488	62	372	434
1997-98	Moradabad MC	84	216	300	310	714	1024	274	945	1219
	Bulandshahr MB	27	85	112	95	412	507	60	377	437
1998-99	Moradabad MC	84	222	306	311	706	1017	274	963	1237
	Bulandshahr MB	27	90	117	86	437	523	60	402	462
1999-00	Moradabad MC	84	239	323	297	731	1028	274	1014	1288
	Bulandshahr MB	27	93	120	85	452	537	58	427	485
2000-01	Moradabad MC	84	242	326	276	795	1071	274	1053	1327
	Bulandshahr MB	27	95	122	81	477	558	57	427	484
Source : Offices of Basic Shiksha Adhikari ,Moradabad and Bulandshahr										

(2) Secondary Education

Enrolment

Year	City	Government			Private			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1996-97	Moradabad MC	120	126	246	15232	10967	26199	15352	11093	26445
	Bulandshahr MB	500	360	860	3829	2768	6597	4329	3128	7457
1997-98	Moradabad MC	129	128	257	17096	11658	28754	17225	11786	29011
	Bulandshahr MB	558	381	939	4265	2919	7184	4823	3300	8123
1998-99	Moradabad MC	168	129	297	16888	11758	28646	17056	11887	28943
	Bulandshahr MB	546	381	927	4195	2924	7119	4741	3305	8046
1999-00	Moradabad MC	241	238	479	17689	11895	29684	17930	12233	30163
	Bulandshahr MB	594	405	999	4552	3105	7657	5146	3510	8656
2000-01	Moradabad MC	255	241	496	18719	12148	30867	18974	12389	31363
	Bulandshahr MB	603	393	996	4615	3014	7629	5218	3407	8625
Year	City	No. of Schools			No. of Teachers			No. of Rooms		
		Govt.	Pvt.	Total	Govt.	Pvt.	Total	Govt.	Pvt.	Total
1996-97	Moradabad MC	1	50	51	21	544	565	6	125	131
	Bulandshahr MB	3	23	26	12	68	80	7	72	79
1997-98	Moradabad MC	1	64	65	22	564	586	7	155	162
	Bulandshahr MB	3	23	26	11	70	81	7	74	81
1998-99	Moradabad MC	2	64	66	24	592	616	9	188	197
	Bulandshahr MB	3	23	26	11	72	83	7	77	84
1999-00	Moradabad MC	2	64	66	28	623	651	9	200	209
	Bulandshahr MB	3	23	26	12	70	82	7	81	88
2000-01	Moradabad MC	2	64	66	30	627	657	14	196	212
	Bulandshahr MB	3	23	26	13	69	82	7	84	91

Source : offices of District Inspector of schools of Moradabad and Bulandshahr

(3) Higher Education										
Year	City	No. of Institutions			Enrolment			No. of Teachers		
					Private					
		Govt.	Pvt.	Total	Male	Female	Total	Govt.	Pvt.	Total
1996-97	Moradabad MC	NIL	6	6	10845	7566	18411	NIL	296	296
	Bulandshahr MB	NIL	2	2	2679	1869	4548	NIL	58	58
1997-98	Moradabad MC	NIL	6	6	11878	8321	20199	NIL	294	294
	Bulandshahr MB	NIL	2	2	2834	198	4820	NIL	58	58
1998-99	Moradabad MC	NIL	6	6	12205	8042	20247	NIL	294	294
	Bulandshahr MB	NIL	2	2	3083	2039	5122	NIL	58	58
1999-00	Moradabad MC	NIL	6	6	9353	7841	17194	NIL	294	294
	Bulandshahr MB	NIL	2	2	2983	2502*	5485	NIL	56	56
2000-01	Moradabad MC	NIL	6	6	9476	8193	17669	NIL	293	293
	Bulandshahr MB	NIL	2	2	3217	2773*	5990	NIL	52	52

Source :Offices of DIOS and Principals of Degree and P.G. colleges of Moradabad and Bulandshahr.

Table 5 A Indicators : Education

	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
a)	Primary											
1.	i) Govt. Schools	per lakh	15.10	17.24	14.54	16.71	14.03	16.22	13.55	16.76	13.10	15.31
	ii) Private Schools		35.58	51.07	37.39	52.62	37.07	54.07	38.55	54.27	37.74	53.90
	iii) Total Schools	pop.	50.68	68.31	51.94	69.33	51.09	70.29	52.09	70.03	50.84	69.22
2.	Student-Teacher ratio											
	i) Govt.		38.38	28.49	40.18	29.25	44.41	33.77	48.13	34.75	51.97	37.01
	ii) Private		40.71	34.90	42.20	37.54	43.15	38.19	44.73	38.54	43.05	39.44
	iii) Total		40.01	33.67	41.59	35.99	43.53	37.46	45.71	37.94	45.35	39.09
3.	Student-classroom ratio											
	i) Govt.		41.74	43.19	45.46	48.31	50.40	48.40	52.18	50.93	52.35	52.60
	ii) Private		31.38	36.97	31.89	41.02	31.63	41.51	32.29	40.80	32.50	44.06
	iii) Total		33.90	37.66	34.94	41.75	35.79	42.40	36.48	42.01	36.60	45.07
4.	Male-female student ratio											
	i) Govt.		1.24	1.05	1.21	1.02	1.09	1.02	1.15	1.02	1.15	1.01
	ii) Private		0.99	1.02	0.96	1.05	0.97	1.11	1.09	1.05	1.11	1.12
	iii) Total		1.06	1.03	1.03	1.05	1.00	1.10	1.11	1.05	1.12	1.11
b)	Secondary											
1.	i) Govt. Schools	per lakh	0.18	1.81	0.17	1.86	0.33	1.82	0.32	1.75	0.31	1.70
	ii) Private Schools		8.99	14.68	11.08	14.24	10.69	13.82	10.32	13.42	9.98	13.05
	iii) Total Schools	pop.	9.17	16.60	11.25	16.10	11.02	15.62	10.64	15.17	10.29	14.75
2.	Student-teacher ratio											
	i) Govt.		11.71	71.67	11.68	85.36	12.38	84.27	17.11	83.25	16.53	76.66
	ii) Private		48.16	97.01	50.98	102.63	48.38	98.88	47.65	109.39	49.23	110.57
	iii) Total		46.81	93.21	49.51	100.26	46.99	96.94	46.33	105.56	47.74	105.18
3.	Student-class room ratio											
	i) Govt.		41.00	122.86	36.71	134.14	33.00	132.43	53.22	142.71	35.43	142.29
	ii) Private		209.59	91.63	185.51	97.08	152.37	92.45	148.42	94.53	157.48	90.82
	iii) Total		201.87	94.39	179.08	100.28	146.92	95.79	144.32	96.36	147.94	94.78
4.	Male-female student ratio											
	i) Govt.		0.95	1.39	1.01	1.46	1.30	1.43	1.01	1.47	1.06	1.53
	ii) Private		1.39	1.38	1.47	1.46	1.44	1.43	1.47	1.47	1.54	1.53
	iii) Total		1.38	1.38	1.46	1.46	1.43	1.43	1.47	1.47	1.53	1.53
c)	Colleges											
1.	Total No.	per lakh pop	1.08	1.28	1.04	1.24	1.00	1.20	0.97	1.17	0.94	1.13
2.	Male-female student ratio		1.43	1.43	1.43	1.43	1.52	1.51	1.19	1.19	1.16	1.16

Table-6 Health

2000-01														
Sl. No	Medical facilities		No. of Units		No. of Beds		No. of Doctors		No. of Nurses		No. of para-medical staff			
			Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.		
1.	No. of Hospitals													
	i) Allopathic	Moradabad MC	3	2	315	200	68	40	103	100	60	20		
		Bulandshahr MB	2	1	180	150	42	7	20	56	22	35		
	ii) Others	Moradabad MC	--	--	--	--	--	--	--	--	--	--		
		Bulandshahr MB	2	--	--	--	4	--	--	--	5	--		
	Total	Moradabad MC	3	2	315	200	68	40	103	100	60	20		
		Bulandshahr MB	4	1	180	150	46	7	20	56	27	35		
2.	No. of Dispensary													
	i) Allopathic	Moradabad MC	15	280	10	600	17	300	10	15	60	10		
		Bulandshahr MB	--	53	--	--	--	53	--	--	--	60		
	ii) Ayurvedic	Moradabad MC	2	300	15	--	3	300	3	--	6	--		
		Bulandshahr MB	--	14	--	--	--	14	--	--	--	8		
	iii) Homeopathic	Moradabad MC	2	10	--	--	2	10	--	--	4	--		
		Bulandshahr MB	1	16	--	--	1	16	--	--	1	8		
	Total	Moradabad MC	19	590	340	800	22	610	13	15	70	10		
		Bulandshahr MB	1	83	180	150	1	68	--	--	1	76		
3.	Dental Clinics	Moradabad MC	1	8	--	--	1	8	--	--	2	--		
		Bulandshahr MB	1	4	--	--	1	4	--	--	1	8		
		Units	1996		1997		1998		1999		2000		2001	
4.	Types of Diseases		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
	1. Respiratory	No. of Persons affected/ treated	1304	1685	1663	1711	1189	1663	1465	1663	1109	1667	1346	1703
	2. Water Borne		1218	1093	1563	1299	1401	1121	1033	1119	1240	1069	1291	1117
	3. Contagious		710	1349	319	1319	418	1339	666	1343	548	1357	532	1365
	Total		3232	4127	3545	4329	3008	4123	3164	4145	2897	4123	3169	4185

Table 6 A Indicators : Health

Sl. No	Parameter	Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Hospitals	No. of Hospital per 1000 pop	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
2.	Dispensaries	No. of Dispensaries per 1000 pop	1.09	0.54	1.05	0.52	1.02	0.50	0.98	0.49	0.95	0.48
3.	Beds	No. of Beds per 1000 pop	2.05	2.12	1.97	2.04	1.90	1.78	1.84	1.93	1.78	1.87
4.	Persons affected /treated For major diseases											
	(a) Respiratory	Per lakh population	298.87	1092.36	205.84	1029.47	244.64	1011.14	178.86	990.36	209.91	966.20
	(b) Water Borne	Per lakh population	280.90	829.32	242.54	693.95	178.83	692.71	198.99	623.87	201.32	633.73
	(c) Contagious	Per lakh population	55.71	842.09	72.36	828.90	11.22	806.87	68.38	791.95	82.95	774.44

Table 7 Transportation

Sl. No	Particulars	Unit	Years											
			1995-96		1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
I	Road Network													
a)	Length of roads	km.	275.75	186.65	284.24	202.73	293.03	269.01	301.84	215.28	310.91	221.73	320.23	228.36
b)	Type of Road													
	Pacca(tarred)road	km.	212.81	151.81	219.11	159.31	225.90	181.02	232.81	188.02	239.70	171.00	246.91	178.11
	Kacha road	km	40.21	28.71	41.51	29.81	42.81	30.50	44.12	31.39	45.40	32.33	48.71	33.30
	Semi-pacca	km.	22.93	18.32	23.62	18.81	24.32	17.31	25.11	17.87	25.81	18.40	26.81	18.95
c)	Road density	km. per sq. km. area	4.34	6.41	4.09	5.90	3.89	5.50	3.72	5.17	3.57	4.99	3.44	4.86
d)	Road Intensity	Km. per lakh pop.	51.51	129.57	51.09	129.41	50.72	129.36	50.38	129.34	50.14	127.78	49.33	128.56

II	Type of vehicles (Regd. with RTO)		Year			
			1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
a)	Freight Vehicles	No.	4089	4471	4281	3998
b)	Passenger Vehicles					
	i) Bus	No.	1174	1014	1213	896
	ii) Taxies/Maxi cabs	No.	145	808	217	707
	iii) Vikrams & Auto rickshaw	No.	945	21	959	19
c)	Non-commercial vehicles (Private owned)					
	i) Cars and Jeeps	No.	12371	1838	13201	1998
	ii) Scooters	No.	110269	45854	117850	50434

Table 7 Continued.....						
III	Work Trip Per day	Average no. of trips	3.50	4.00	3.50	4.00
IV	Modal Split					
	Two Wheelers	%	85.48	84.91	85.57	86.88
	Four wheelers	%	10.32	3.44	10.28	3.47
	Buses	%	0.91	1.88	0.88	1.54
	Medium Vehicles	%	0.11	1.50	0.16	1.22
	Heavy Vehicles	%	3.17	8.28	3.11	6.89
V	Travel Time	in minute	35-40	25-30	35-40	25-30
VI	Average Distance per trip	kms.	19	10	19	10
VII	Average expenditure of HH per month on public transport	Rs.	450	300	475	325
	On Private Vehicle	Rs.	380	250	400	300
VIII	Effective Utilization of Public Bus fleet	No.	No public transport bus plies within cities. Private buses operate in cities, which are more than 90%, effectively utilized.			

Source :Offices of RTO, Moradabad and Bulandshahr.

Table 7A Indicators: Transportation

Sl. No.	Indicators		Unit	Years					
				1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
1.	Road Length	Moradabad MC	Km	275.75	284.24	293.03	301.84	310.91	320.23
		Bulandshahr MB		196.65	202.73	209.01	215.28	221.73	228.36
2.	Road Density	Moradabad MC	km.per sq. area	4.34	4.09	3.89	3.72	3.57	3.44
		Bulandshahr MB		6.41	5.90	5.50	5.17	4.89	4.66
3.	Road Intensity	Moradabad MC	km. per lakh population	51.51	51.08	50.72	50.39	50.14	49.93
		Bulandshahr MB		129.57	129.41	129.38	129.34	127.79	129.56
4.	Automobile Ownership			Year					
a)	Passenger vehicle			1999-00		2000-01			
				Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB		
	i) Bus		per 1000 pop	1.89	5.92	1.89	5.08		
	ii) Taxies/ Maxi Cabs		per 1000 pop	0.23	4.72	0.34	4.01		
	iii) Vikram & Auto rickshaw		per 1000 pop	1.52	0.12	1.50	0.11		
b)	Non-commercial vehicles (private owned)								
	i) Cars and Jeeps		per 1000 pop	19.95	10.73	20.59	11.34		
	ii) Scooters		per 1000 pop	177.84	267.60	183.78	286.14		
5.	Modal Split								
				Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB		
	i) Two wheelers		%	85.48	84.91	85.57	86.88		
	ii) Four wheelers		%	10.32	3.44	10.28	3.47		
	iii) Buses		%	0.91	1.88	0.88	1.54		
	iv) Medium vehicles		%	0.11	1.50	0.16	1.22		
	v) Heavy vehicles		%	3.17	8.28	3.11	6.89		
6.	Average expenditure								
a	On Public Transport		% of total income	7.50	5.00	7.31	5.00		
b	On Private Vehicle		% of total income	6.33	4.17	6.15	4.62		

Table 7A Continued.....

7.	Road Safety			1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
a	Fatal	Moradabad MC	Accidents per 1000 pop	0.12	0.11	0.10	0.13	0.12	0.12
		Bulandshahr MB	Accidents per 1000 pop	0.85	0.92	0.98	0.79	0.61	0.62
b	Non-fatal	Moradabad MC	Accidents per 1000 pop	0.16	0.11	0.12	0.12	0.10	0.11
		Bulandshahr MB	Accidents per 1000 pop	0.80	0.85	0.90	0.94	1.05	1.14

Table 8 Water Supply

				Year				
Sl. No.			Unit	1996-97	1997-98	1998-99	1999-00	2000-01
1.	Water Supply							
i	1) System Capacity	Moradabad MC	MLD	60	60	70	80	90
		Bulandshahr MB		10	12.5	13	14	14
	2) Loses	Moradabad MC	MLD	1.2	1.2	1.4	1.6	1.8
		Bulandshahr MB		1	1.2	1.3	1.4	1.4
	3) Net availability	Moradabad MC	MLD	58.8	58.8	68.6	78.4	88.2
		Bulandshahr MB		9	11.3	11.7	12.6	12.6
	4) Per capital supply	Moradabad MC	LPCD	106	102	115	126	138
		Bulandshahr MB		57	70	70	74	79
	5) Treatment of water Supply	Moradabad MC	%	80	70	72	75	70
		Bulandshahr MB		100	100	100	100	100
	6) Duration of Water Supply	Moradabad MC	Morning and evening hours are included	16	12	14	16	16
		Bulandshahr MB		10	10	8	8	8
II	Water Demand							
	1) Per capita demand	Moradabad MC	LPCD	120	125	144	150	160
		Bulandshahr MB		120	120	120	130	135
	2) Domestic connection	Moradabad MC	No.	29344	30324	32030	33400	34981
		Bulandshahr MB		8790	9500	10600	10650	10700
	3) Access to Potable Water	Moradabad MC	% of city HHs	80	90	90	80	80
		Bulandshahr MB		68	70	71	73	75
	4) Water Allocation for Domestic use	Moradabad MC	% of total connections	98	98	98	98	98
		Bulandshahr MB		86	87	88	88	89
	5) Metered Domestic Connections	Moradabad MC	% of total domestic connections	No Meter connection				
		Bulandshahr MB						

Table 8 Continued.....

Table 8 Continued.....								
III Tariff								
(1) Rate non-domestic	Moradabad MC		Rs.5.00 per 1000 litre plus water tax @ 12.5% of assessed value					
	Bulandshahr MB							
(2) Minimum charge (domestic)	Moradabad MC		15/-	15/-	15/-	30/-	30/-	
	Bulandshahr MB		50	50	50	50	50	
(3) Rate non-domestic (commercial)	Moradabad MC		Rs.5.00 per 1000 litre water tax @ 12.5% of assessed value					
	Bulandshahr MB							
(4) Minimum charge	Moradabad MC		150/-	150/-	150/-	150/-	150/-	
	Bulandshahr MB		100	100	100	100	100	
IV Access to slums Households								
1) Access of slum households to stand post	Moradabad MC	No. per 1000 slum HHs.	46.06	44.67	43.37	39.95	37.03	
	Bulandshahr MB		55.19	48.78	43.71	38.63	34.62	
2) Ground Water Depletion	Moradabad MC		1-2Ft. lowering of ground water table per year					
	Bulandshahr MB							

Source : Offices of Jalkal Vibhag, Moradabad and Jal Nigam and Bulandshahr

Table 8 A Indicators: Water Supply

Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Access to Potable Water	% of city HHs.	80	68	90	70	90	71	80	73	80	75
2	Water allocation for domestic use	% of total connections	98	86	98	87	98	88	98	88	98	89
3	Domestic connection	No	29344	8790	30324	9500	32030	10600	33400	10650	34981	10700
4	Metered domestic connection	% of total domestic connections	No Meter connection									
5	Per capita demand	LPCD	120	120	125	120	144	120	150	130	160	135
6	Per capita supply	LPCD	120	72	125	87	144	78	150	79	160	79
7	Losses	MLD	1.2	1	1.2	1.2	1.4	1.3	1.6	1.4	1.8	1.4

Table 9 Electricity

Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Total Electricity Supply	Mkwh	342.74	214.48	344.44	195.54	448.47	227.60	407.52	231.12	460.42	234.94
2	Total Consumption	Mkwh	209.75	185.15	207.56	176.64	241.38	204.49	206.89	206.08	265.42	188.14
3	Per Capita Consumption	Kwh	378.95	1182.02	359.30	1093.49	403.08	1228.55	333.88	1202.84	413.92	1087.40
4	Electric Consumption	Mkwh	209.75	185.15	207.56	176.64	241.38	204.49	206.89	206.08	265.42	188.14
	a) Domestic	Mkwh	60.59	14.01	79.92	16.40	108.89	18.61	80.54	20.67	129.36	30.33
	b) Commercial	Mkwh	70.20	4.44	47.05	5.11	49.39	5.48	45.50	5.41	57.21	6.90
	c) Industrial	Mkwh	25.28	19.57	29.38	13.25	31.84	13.92	25.84	10.60	38.32	8.45
	d) Others	Mkwh	53.68	147.13	51.21	141.88	50.15	166.47	55.02	169.40	40.53	42.46
Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
5	Electricity Connections	No.	73873	36248	58896	37098	84235	34927	87848	39394	91742	41724
	a) Domestic	No.	51487	22271	52134	22905	59910	20437	64274	24944	65431	26606
	b) Commercial	No.	17623	5038	18308	5262	19368	5491	20552	5582	21240	5954
	c) Industrial	No.	2687	825	2776	797	2806	775	2807	544	2979	637
	d) Others	No.	2076	8114	2148	8134	2151	8224	2155	8324	2092	8527
6	Power Losses	%	38.79	13.68	39.73	9.66	46.18	10.12	49.23	10.84	42.35	19.92
7	Breakdown rate	Duration in hours in a month	33.50	24.17	32.00	22.50	31.15	20.83	30.50	20.00	28.80	18.75

Table 9 Contd.....				
8	Domestic charges	(a) Fixed Electric Charges per meter connection Rs. 300/- Plus per unit charge on units consumed		
		Units	Rate per unit (Rs.)	
			YEAR 2001	
			Moradabad MC	Bulandshahr MB
		1-50	1.50	1.50
		50+	1.80	1.80
		(b) Duty	2.10	2.10
		(c) Meter rent	6.00	6.00

Source : Offices of Power Corporation ,Moradabad and Bulandshahr.

Table 9A Indicators : Electricity

Sl. No.	Parameters		Unit	Year				
				1996-97	1997-98	1998-99	1999-00	2000-01
1	Total Electricity Supply	Moradabad MC	Mkwh	342.74	344.44	448.47	407.52	460.42
		Bulandshahr MB		214.48	195.54	227.60	231.12	234.94
2	Total Consumption	Moradabad MC	Mkwh	209.75	207.56	241.38	206.89	265.42
		Bulandshahr MB		185.15	176.64	204.49	206.08	188.14
3	Line losses	Moradabad MC	%	38.79	39.73	49.23	46.17	42.25
		Bulandshahr MB		13.68	9.66	10.15	10.84	12.49
4	Per Capita Consumption	Moradabad MC	Kwh	376.95	359.30	403.08	333.68	413.92
		Bulandshahr MB		1182.02	1093.49	1228.55	1202.64	1067.40
5	Electric domestic connection	Moradabad MC	%	69.70	88.52	71.12	73.17	71.32
		Bulandshahr MB		61.44	61.74	58.51	63.32	63.77
6	Electricity Charges (Av.con.500 units)	Moradabad MC	Rs. per unit	1.96	1.96	2.13	2.38	2.58
		Bulandshahr MB		1.96	1.96	2.13	2.38	2.58

Table 10 Telecommunication

Sl. No	Parameter	Unit	Year			
			1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Telephone connection	% of Total HHS	28.91	71.71	33.13	99.02
2	Access to telephone	No. per 1000 population	47.84	122.68	55.22	170.26
3	Public telephone	No. per 1000 population	0.92	6.25	1.49	7.15
4	Telephone Efficiency Rate	Faults per 100 phones per month	18.65	1.90	13.70	1.50
5	Mobile Connections	No.	9000	3500	9500	5500
6	Access to Postal Service	P.O. per 1000 population	0.04	0.05	0.04	0.05

Source : Offices of BSNL and Escotel, Moradabad and Bulandshahr.

Table 11 Sanitation, Sewerage And Solid Waste

Sanitation												
Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Drainage System (Open Drains)	%	90	100	90	100	90	100	90	100	90	100
2	Availability of Public Toilets	No.	20	8	20	9	20	11	20	12	20	14
3	Sulabh Sauchalaya & Other services	No	5	5	5	5	5	6	5	7	6	7
Solid Waste Management												
Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Solid Waste Generated	Tonnes per day	150	28	200	29	250	30	280	31	300	32
2	Average Collection		150	28	200	29	250	30	280	31	300	32
3	Collection Effectiveness	% (row 2 to row 1)	100	100	100	100	100	100	100	100	100	100
4	Net Coverage		Sewerage does not exist									
	(i) Sewerage Connection	No.										
	(ii) Coverage of HHs	%(Sewered HHs to Total HHs)										
	(iii) Network Length	Km										
	(iv) Network Density	Km/sq.k m. area										
5	Disposal Method (Open Dump)	%	100	100	100	100	100	100	100	100	100	100
6	Vehicles Deployed	No	22	6	29	6	29	7	29	7	29	8
7	Total Staff Deployed (for street cleaning of solid waste)	No	478	380	478	380	478	380	478	380	478	380

Table 11 Continued.....

Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
8	Total Staff Deployed (for solid waste removal)	%	4.78	15.78	8.66	15.78	8.66	15.78	8.66	15.78	8.66	15.78
9.	Public Toilets	No.	20	8	20	9	20	11	20	12	20	14
	Vehicles Deployed											
	Trucks	No.	3	1	5	1	5	1	5	1	5	1
	Tipper	No.	--	--	--	--	--	--	--	--	--	--
	Dumper	No.	3	--	3	--	3	1	3	1	3	1
	Compactor	No.	--	--	5	--	5	--	5	--	5	--
	Loader	No.	4	1	4	1	4	1	4	1	4	2
	Tractor with Trolley	No.	12	4	12	4	12	4	12	4	12	4
	Total	No.	22	6	29	6	29	7	29	7	29	8

Source: Offices of Municipal Corporation, Moradabad and Municipal Board Bulandshahr. Jal Nigam Bulandshahr

Table 11 A Indicators: Sanitation And Solid Waste

Sl. No.	Parameters	Unit	Year									
			1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Sewerage											
	(a) Access to Sewerage	% of HHs	Sewerage does not exist									
	(b) Access to low cost sanitation	% of HHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	(c) Availability of Public Toilets	per 1000 pop	0.04	0.05	0.04	0.06	0.03	0.07	0.03	0.07	0.03	0.08
2.	Solid Waste Management											
	(a) Waste Water Treated	%	80	100	70	100	72	100	75	100	70	100
	(b) Solid Waste Generated	in tonnes p.person p.a	0.10	0.07	0.13	0.07	0.15	0.07	0.17	0.07	0.17	0.07
	(c) Solid Waste Collection Rate	%	100	100	100	100	100	100	100	100	100	100
	(d) Disposal Method (Open Dump)	%	100	100	100	100	100	100	100	100	100	100
	(e) Regular Solid Waste Collection	Tonnes per day	Collection of solid waste from households is done privately									
	(f) Housing Destroyed in Disasters	No.	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

Table 12 Community Facilities

Sl. No.	Facilities	No.	
		Moradabad MC	Bulandshahr MB
1	Municipal Garden	17	8
2	Community Hall	4	2
3	Corporation Playground	1	--
4	Municipal Stadium	--	1
5	Cinema Hall	10	8
6	Public Library	1	3
7	Museum	--	--

Source: Offices of Municipal Corporation, Moradabad and Municipal Board Bulandshahr

Table 13 Air Pollution

Location

MORADABAD MC				
Item	Year			
	Town Hall		Peeli Kothi	
	2000	2001	2000	2001
SO ₂	24.00	8.18	15.33	9.50
NO ₂	19.00	5.50	14.66	6.83
SPM	336.00	225.00	247.66	229.28
PM-10	90.00	63.66	107.33	86.66
TSP	426.00	288.66	354.99	315.94
Source : UP Pollution Control Board, Moradabad				
B. BULANDSHAHR MB				
DATA NOT AVAILABLE				
Item	Year			
	2000	2001	2000	2001
SO ₂				
NO ₂				
SPM				
PM-10				
TSP				

Table 14 Governance

Budget Statement Of Municipal Corporation/Board						
Account	Total Receipts (Rs. In Lakhs)					
	1998-1999		1999-2000		2000-01	
	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
Revenue A/c						
(a) Taxes	121.31	72.38	176.08	70.88	184.12	60.83
(b) Income from Property & Other Sources	160.18	55.29	160.69	60.33	183.48	71.07
(c) Government Grants	976.32	319.28	939.65	326.66	1149.37	328.36
(d) Miscellaneous	32.52	--	19.17	--	27.59	64.30
Total (Revenue A/c)	1290.33	446.95	1295.59	457.87	1544.56	524.56
Capital Account	57.65	280.61	57.65	303.80	57.65	298.61
Suspense Account	20.76	--	1.45	--	8.71	--
Development Account	55.00	38.67	259.73	22.86	401.25	29.75
Grand Total	1423.74	766.23	1614.42	784.53	2012.17	852.92

Table 14 Continued.....

Total Expenditure (In Lakhs)						
	1999-2000		2000-2001		2001-2002	
	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
(a) Salary and Wages	845.01	385.58	993.85	381.07	1021.52	378.20
(b) Loan Payment	-	-	-	-	-	-
(c) Sanitation	26.60	11.74	30.65	31.04	28.79	12.26
(d) Public Health	59.93	-	74.44	-	41.98	-
(e) Street Lighting	40.81	1.90	10.98	0.96	2.54	6.18
(f) Public Work	203.53	101.68	162.64	37.26	155.16	48.49
(g) Miscellaneous	59.95	-	59.24	-	190.74	-
Capital Account	-	-	1.44	-	169.26	-
Suspense Account	18.61	-	10.61	-	4.93	-
Development Account	56.95	101.68	163.30	37.26	261.32	48.49
Grand Total	1311.39	515.38	1507.15	466.09	1876.24	466.52

Source: Municipal corporation Moradabad and District Statistical office Bulandshahr

Table14 A

Indicators: Governance

	1999-2000		2000-2001		2001-2002	
	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1. Local Government Per Capita Income	237.75	460.35	260.38	457.85	313.79	461.22
2. Local Government per capita expenditure	218.99	309.64	243.07	272.01	292.60	264.68
3. Debt Service Charge Ratio	NIL	NIL	NIL	NIL	NIL	NIL
4. Local Government Employees						
(a) Regular	2415	1920	2415	1920	2415	1920
(b) Daily Wagers	432	343	432	343	432	343
Total	2847	2263	2847	2263	2847	2263
Local Govt. Employees per 1000 pop.	4.76	13.60	4.60	13.21	4.44	12.84
5. Personnel Expenditure Ratio	64.44	74.82	65.95	81.76	54.45	81.07
6. Contracted Revenue Expenditure Ratio	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Table 15 Housing

Sl.No.	Parameters	Unit	1991		2001	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	No. of Households	No.	65335	20305	108873	30308
2.	No. of Dwelling Units	No.	59295	19750	96993	30137
3.	Tenure System					
	(a) Owned	%	81.47	74.03	83.72	76.28
	(b) Rented	%	15.42	21.77	11.78	18.13
	(c) Sub-letting	%	3.11	4.20	4.50	5.59
4.	Households per dwelling unit	No.	1.11	1.03	1.11	1.01
5.	Houseless households	No.	1209	102	2031	170
6.	Houselessness	%	1.85	0.50	1.90	0.56
7.	Slum Concentration					
	(a) Slum HHs	% (total HHs)	10.32	34.74	13.90	30.50
	(b) Slum population	% (total pop.)	9.42	32.27	13.90	30.52
	(c) Slum area	Ha.	4.03	3.13	7.9	4.1
	Demand Analysis					
1.	Household Size	No	6.57	6.30	6.00	5.82
2.	Dwelling size		7.24	6.27	6.61	5.85
3.	Condition of structures					
	(a) Pucca	%	N.A.	N.A.	91.50	95.00
	(b) Kuccha	%	N.A.	N.A.	8.50	5.00
4.	Floors					
	(a) Single Storied	%	N.A.	N.A.	78.00	81.25
	(b) Double Storied	%	N.A.	N.A.	16.50	15.00
	(c) Triple Storied	%	N.A.	N.A.	5.50	3.75
5.	Condition of Housing					
	(a) Good	%	N.A.	N.A.	46.23	59.31
	(b) Average	%	N.A.	N.A.	35.61	28.57
	(c) Poor	%	N.A.	N.A.	18.16	12.12

Table 15 Continued.....

Supply Analysis							
	Supply of houses (During 1991-2001)	Moradabad MC	Bulandshahr MB	Range of area covered per unit (in Sq.M.)		Range of cost per dwelling (Rs.in lakh)	
				Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Total housing stock constructed by Development Authority						
	(i) EWS	14050	100	13-30	20	0.5-0.8	0.35
	(ii) LIG	2200	100	30-60	18-23	1.25-2.50	0.72-0.76
	(iii) MIG	1288	191	60-128	56-79	3-7.5	0.95-2.60
	(iv) HIG	828	20	90-200	102	5-11.5	4.00
	(v) One room tenement (Ashray Yojana)	1960	NIL	13	NIL	0.58	NIL
	(vi) Duplex	38	NIL	200	NIL	5.00	NIL
		1998-99		1999-2000		2000-2001	
		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
2.	Supply of housing (Sector-wise)						
	(a) Private Sector						
	i. Maps approved	1630	338	1730	218	1740	227
	ii. Housing on 100 Sq.M. plot (in the core area)	68	N.A.	68	N.A.	52	N.A.
	Total (a)	1698	338	1798	218	1792	227
	(b) Public Sector	123	-	136	2	149	38
	Total (a+b)	1821	338	1934	220	1941	265
3.	Housing under compliance (Sector-wise)						
	(a) Private Sector (%)	30	25	30	25	30	25
	(b) Public Sector (%)	75	80	75	80	75	80
4.	Average construction cost per Sq.M. (in Rs.)	3000	3000	4000	4000	4500	4500

Source : Offices of Development authorities and Awas Vikas of Moradabad and Bulandshahr

Table 15A Indicators: Housing

SL. No.	Parameters	Unit	1991		2001	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Household per dwelling unit	No.	1.11	1.03	1.11	1.01
2.	Houselessness	%	1.85	0.50	1.90	0.56
3.	Household Size	No.	6.57	6.30	6.00	5.82
4.	Dwelling size	No.	7.24	6.27	6.61	5.85
5.	Tenure System					
	(a) Owned	%	81.47	74.03	83.72	76.28
	(b) Rented	%	15.42	21.77	11.78	18.13
	(c) Sub-letting	%	3.11	4.20	4.50	5.59
6.	Slum Concentration					
	(a) Slum Households	% (total HHs)	10.32	34.74	13.90	30.50
	(b) Slum Population	% (total Pop.)	9.42	32.27	13.90	30.52
	(c) Slum area	Ha.	4.03	3.13	7.9	4.1
7.	Supply of housing (Sector-wise)					
	(a) Private	No.	N.A.	N.A.	1792	227
	(b) Public	No.	N.A.	N.A.	149	38
8.	Housing under compliance (sector-wise)					
	(a) Private	No.	N.A.	N.A.	29097.90	7534.25
	(b) Public	No.	N.A.	N.A.	72744.75	24109.60
9.	Average Construction Cost	Rs. per Sq.M.	N.A.	N.A.	4500	4500
10.	House price to income ratio		--	--	20.81	20.81
11.	House rent to income ratio		--	--	0.13	0.13
12.	Floor area per person (Sq.M.)		--	--	5.00	5.50
13.	Permanent structures (percentage)		--	--	91.50	95.00
14.	Housing in compliance (percentage of total Maps approved by Dev. Autho.)		--	--	40	35
15.	Land Development Multiplier		--	--	4.00	3.80
16.	Infrastructure expenditure		--	--	N.A.	N.A.
17.	Mortgage to credit ratio (in percentage)		--	--	100.00	100.00

Table 16 Land Prices-2002

MORADABAD (M C)			
Sl. No.	Name of the Locality on main road	Market Land Prices (Rs. per sq.m.)	
		Up to 40 meters from main road	Beyond 40 meters from main road
1	Wajid Nagar Cinema Road	10000	8000
2	Goalghar	8000	7000
3	Mandibaans	7000	6000
4	Malviya Nagar khush hal Nagar	6500	5500
5	Jigar Colony	6000	5000
6	Ram Ganga Vihar phase-1	5000	4500
7	Transport Nagar	4000	3000
8	Harthala- Sonakpur Dakshini / Ambedkar Nagar	3000	2000
9	Indira Colony	2000	1000
10	Pampat pura	1000	700
BULANDSHAHR (MB)			
1	Gandhi Chowk (Manzar Park)	12000	8000
2	Kabadi Bazar	10000	7000
3	Guru Ganj	8000	5000
4	Civil Lines (Bhargav Nagar)	5000	3500
5	Aaraziyaat	3500	3000
6	Intaa Rori	3000	2500
7	Adarsh Nagar	2000	1500
8	Avas Vikas Colony Phase no.-1	1740	1500
9	Krishi Vidyalaya	1100	1000
10	Islaamabad	1000	800

Source: Offices of ADM-Revenue of Moradabad and Bulandshahr

Table 17 Slum

Sl. No.	Parameters	1998-99				2000-01				
		NOTIFIED		UN-NOTIFIED		NOTIFIED		UN-NOTIFIED		
		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	
1.	No. of Slums	60	23	13	5	60	26	13	5	
2.	Slum Area (in Ha.)	5.70	2.80	1.20	0.60	6.70	3.50	1.20	0.60	
3.	No. of HHs	10417	6014	2265	1307	12200	7593	2652	1651	
4.	Slum pop.	62500	35000	13588	7609	73200	44192	15914	9607	
	(a) Male	33188	18480	7215	4018	38869	23333	8450	5072	
	(b) Female	29312	16520	6373	3591	34331	20859	7464	4535	
	Basic Amenities Coverage									
			1998-99				2001			
			NOTIFIED		UN-NOTIFIED		NOTIFIED		UN-NOTIFIED	
		Units	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1	Street Light	%	PROVIDED ALMOST IN ALL SLUMS							
2	Domestic Light	% of total HHs	60	90	---	---	60	95	---	---
3	Sanitation		OPEN DRAINAGE							
4.	Water Supply (Taps)	No.	15	6	---	---	25	6	---	---
5.	Public Toilets	No.	25	11	---	---	25	14	---	---
6.	Community Centre	No.	7	3	---	---	7	4	---	---

Source: District Urban Development Agency (DUDA) Moradabad, Municipal Board, Bulandshahr

ANNEXURE

**Urban Indicators: Moradabad And Bulandshahr
General Background
Area, Land Use And Demography**

Boundary		Area in Sq. Km.				
		1991		2001		
1.	Moradabad MC	34.17		93.00*		
2.	Bulandshahr MB	12.33		49.00*		
Land Use of Municipal Corporation Area (Percentage)						
		1991		2001		
		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	
1.	Residential	52.00	35.9	60.1	49.52	
2.	Commercial	2.00	1.5	2.65	2.62	
3.	Industrial	5.00	3.2	4.96	10.20	
4.	Government Offices	5.00	3.0	3.48	1.7	
5.	Public and Semi-public utilities	8.02	6.8	11.58	15.58	
6.	Transport facilities	11.00	15.5	16.29	17.49	
7.	Undeveloped area	16.98	34.1	0.94	2.89	
	Area Under Conservation	N.A.	N.A.	N.A.	N.A.	
Demography						
		Unit	1991		2001	
1.	<u>Population</u>		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
	Male	Lakhs	2.29	0.67	3.40	0.93
	Female	Lakhs	2.00	0.60	3.01	0.83
	Total	Lakhs	4.29	1.27	6.41	1.76
2.	Decadal Growth of Population	%	30.04	22.97	49.39	38.56
3.	Age Distribution					
	(a) Persons Below Age of 14 years	%	41.07	40.12	39.02	38.12
	(b) Persons above age of 60 years	%	4.73	5.33	5.20	5.86

Annexure Continued.....

4.	Population Density	Persons/ ha.	12561	10316	6895	3597
5.	Households	No.	65335	20305	106873	30308
6.	Average Household Size	No.	6.57	6.30	6.00	5.82
7.	Sex Ratio	F/1000 M	873	887	885	894
8.	Literacy Rate					
	(a) Male	%	62.75	74.07	66.04	81.57
	(b) Female	%	51.15	53.68	56.23	64.69

Module 1 : Socio-Economic Indicators

Sl.No.		Unit	Moradabad MC	Bulandshahr MB	Uttar Pradesh	India
1.	Gross National Product (at 1993-94 prices)	Rs. Crores	2596.67	2508.92	100877	9499525
			(1998-99)	(1998-99)	(1998-99)	(1998-99)
2.	Per Capita Income (at 1993-94 prices)	Rs.	7842.55	8693.42	6117	9739
			(1998-99)	(1998-99)	(1998-99)	(1998-99)
		Unit	1991		2001	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
3.	Houseless HHs.	% to total HHs	1.85	0.50	1.90	0.56
4.	Houseless Population	% to total pop.	1.85	0.50	1.90	0.56
5.	Pop. below poverty line	% to total pop.	1.28	2.00	1.93	2.50
6.	Households below poverty line	% to total HHs	1.21	2.00	1.47	2.50
7.	Workforce Participation Rate	%	27.55	25.7	26.90	25.97
8.	Sectoral Distribution of main workers					
	(a) Primary	%	4.24	8.93	3.82	6.73
	(a) Secondary	%	41.34	22.82	37.12	28.19
	(c) Tertiary	%	54.42	68.25	59.06*	65.08*

Module 1 Continued.....

		Unit	1997		1998		1999		2000		2001	
9.	Vital Statistics		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
	(a) Birth Rate	per 1000 pop.	19.78	15.20	17.96	15.31	19.61	14.80	15.69	15.75	15.00	15.01
	(b) Death Rate		4.10	5.19	5.88	6.67	4.40	5.16	4.84	5.66	4.74	5.65
	(c) Infant Mortality Rate		27.5	34.81*	24.0	27.23	20.0*	23.46*	10.0	11.68*	10.0	11.92*
10.	Crime											
	(a) Theft	per 1000 pop.	0.49	0.65	0.62	0.71	0.54	0.79	0.44	0.54	0.43	0.70
	(b) Robbery		0.05	0.04	0.08	0.06	0.04	0.11	0.03	0.06	0.04	0.03
	(c) Murder		0.09	0.13	0.10	0.12	0.07	0.14	0.06	0.07	0.05	0.09
	(d) Crime against women		0.40	0.26	0.27	0.24	0.33	0.21	0.31	0.19	0.30	0.37

Module 2: Social Infrastructure

Parameters	Unit	Year									
		1996-97		1997-98		1998-99		1999-00		2000-01	
		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
a) Primary											
1. i) Govt. Schools	per lakh	15.10	17.24	14.54	16.71	14.03	16.22	13.55	15.76	13.10	15.31
ii) Private Schools	pop.	35.58	51.07	37.39	52.62	37.07	54.07	38.55	54.27	37.74	53.90
iii) Total Schools		50.68	68.31	51.94	69.33	51.09	70.29	52.09	70.03	50.84	69.22
2. Student-Teacher ratio											
i) Govt.		38.38	28.49	40.18	29.25	44.41	33.77	48.13	34.75	51.97	37.01
ii) Private		40.71	34.90	42.20	37.54	43.15	38.19	44.73	38.54	43.05	39.44
iii) Total		40.01	33.67	41.58	35.99	43.53	37.48	45.71	37.84	45.35	38.09
3. Student-classroom ratio											
i) Govt.		41.74	43.19	45.46	46.31	50.40	48.40	52.18	50.93	52.35	52.60
ii) Private		31.38	36.97	31.89	41.02	31.63	41.51	32.29	40.80	32.50	44.06
iii) Total		33.90	37.86	34.94	41.75	35.79	42.40	36.48	42.01	36.60	45.07
4. Male-female student ratio											
i) Govt.		1.24	1.05	1.21	1.02	1.09	1.02	1.15	1.02	1.15	1.01
ii) Private		0.99	1.02	0.96	1.05	0.97	1.11	1.09	1.05	1.11	1.12
iii) Total		1.06	1.03	1.03	1.05	1.00	1.10	1.11	1.05	1.12	1.11
b) Secondary											
1. i) Govt. Schools	per lakh	0.18	1.91	0.17	1.86	0.33	1.82	0.32	1.75	0.31	1.70
ii) Private Schools	pop.	8.99	14.68	11.08	14.24	10.69	13.82	10.32	13.42	9.98	13.05
iii) Total Schools		9.17	16.60	11.25	16.10	11.02	15.62	10.64	15.17	10.29	14.75
2. Student-teacher ratio											
i) Govt.		11.71	71.67	11.68	85.36	12.38	84.27	17.11	83.25	16.53	76.66
ii) Private		48.16	97.01	50.98	102.63	48.38	98.88	47.65	109.39	49.23	110.57
iii) Total		46.81	93.21	49.51	100.28	46.99	96.94	46.33	105.56	47.74	105.18
3. Student-class room ratio											
i) Govt.		41.00	122.86	36.71	134.14	33.00	132.43	53.22	142.71	35.43	142.29
ii) Private		209.59	91.63	185.51	97.08	152.37	92.45	148.42	94.53	157.48	90.82
iii) Total		201.87	94.39	179.08	100.28	146.92	95.79	144.32	98.36	147.94	94.78
4. Male-female student ratio											
i) Govt.		0.95	1.39	1.01	1.46	1.30	1.43	1.01	1.47	1.06	1.53
ii) Private		1.39	1.38	1.47	1.46	1.44	1.43	1.47	1.47	1.54	1.53
iii) Total		1.38	1.38	1.46	1.46	1.43	1.43	1.47	1.47	1.53	1.53
c) Colleges											
1. Total No.	per lakh pop	1.08	1.28	1.04	1.24	1.00	1.20	0.97	1.17	0.94	1.13
2. Male-female student ratio		1.43	1.43	1.43	1.43	1.52	1.51	1.19	1.19	1.16	1.16

Module 2 Continued.....

Sl. No	Health	Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Hospitals	No. of Hospitals per 1000 pop	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03	0.01	0.03
2.	Dispensaries	No. of Dispensaries per 1000 pop	1.00	0.54	1.05	0.52	1.02	0.50	0.98	0.49	0.95	0.48
3.	Beds	No. of Beds per 1000 pop	2.05	2.12	1.97	2.04	1.90	1.78	1.84	1.93	1.78	1.87
4.	Persons affected /treated For major diseases											
	(a) Respiratory	Per lakh population	298.87	1092.36	205.84	1029.47	244.64	1011.14	178.86	990.36	209.91	966.20
	(b) Water Borne	Per lakh population	280.90	829.32	242.54	693.95	178.83	602.71	199.99	623.87	201.32	633.73
	(c) Contagious	Per lakh population	55.71	842.09	72.36	828.90	11.22	806.97	68.38	791.95	82.96	774.44

Module 3: Road And Transportation

		Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Road Length	Km.	284.24	202.73	293.03	208.01	301.84	215.28	310.91	221.73	320.23	228.36
2.	Road density	km per sq. km area	4.09	5.90	3.89	5.50	3.72	5.17	3.57	4.89	3.44	4.66
3.	Road Intensity	km per lakh pop.	51.08	129.41	50.72	129.38	50.39	129.34	50.14	127.79	49.33	129.56
			1999-2000					2000-01				
4.	Automobile Ownership		Moradabad MC		Bulandshahr MB		Moradabad MC		Bulandshahr MB			
(a)	Passenger Vehicles											
	(i) Bus	Per 1000 pop	1.89		5.92		1.89		5.08			
	(ii) Taxi/Maxi Cabs		0.23		4.72		0.34		4.01			
	(iii) Vikram & Auto rickshaw		1.52		0.12		1.50		0.11			
	Non-Commercial Vehicles (Pvt. Owned)											
(b)	(i) Cars & Jeeps	Per 1000 pop.	19.95		10.73		20.59		11.34			
	(ii) Scooters		177.84		267.60		183.78		286.14			
5.	Modal Split		Moradabad MC		Bulandshahr MB		Moradabad MC		Bulandshahr MB			
	(i) Two wheelers	%	85.48		84.91		85.57		86.88			
	(ii) Four wheelers		10.32		3.44		10.28		3.47			
	(iii) Buses		0.91		1.88		0.88		1.54			
	(iv) Medium vehicles		0.11		1.50		0.16		1.22			
	(v) Heavy Vehicles		3.17		8.28		3.11		6.89			
6.	Average Expenditure											
	(i) On Public Transport	% of total income	7.50		5.00		7.31		5.00			
	(ii) On Private Vehicle		6.33		4.17		6.15		4.62			

Module 3 Continued.....

		Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
7.	Road Safety		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
	(i) Fatal	Accident per 1000 pop.	0.11	0.92	0.10	0.98	0.13	0.79	0.12	0.61	0.12	0.62
	(ii) Non-Fatal		0.11	0.85	0.12	0.90	0.12	0.94	0.10	1.05	0.11	1.14

**Module-4 : Physical Infrastructure
Water Supply**

Sl. No.	Parameters	Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Access to Potable Water	% of city HHs	80	66	90	70	90	71	90	73	80	75
2.	Water allocation for Domestic Use	% of total connections	98	86	98	87	98	88	98	88	98	89
3.	Domestic Connections	No.	29344	8790	30324	9500	32030	10600	33400	10650	34981	10700
4.	Metered Domestic Connections	% of total domestic connections	NO METER CONNECTION									
5.	Per Capita Demand	LPCD	120	100	125	115	144	120	150	130	160	135
6.	Per Capita Supply	LPCD	106	57	102	70	115	70	126	74	138	79
7.	Losses	MLD	1.2	1	1.2	1.2	1.4	1.3	1.6	1.4	1.8	1.4
8.	Duration of Water Supply	Morning & Evening hours included	16	10	12	10	14	8	16	8	16	8
9.	Water Price											
(I)	Rate Domestic		Rs. 1.50 per 1000 litre plus water tax @ 12.5 % of assessed value									
(II)	Minimum Charges (Domestic)		15	50	15	50	15	50	30	50	30	50
10.	Access of Slum Households to Standpost	No. per 1000 slum HHs	46.06	55.19	44.67	48.78	43.37	43.71	39.95	38.63	37.03	34.62
11.	Ground Water Depletion		1-2 FT. LOWERING OF GROUND WATER TABLE PER YEAR									

Electricity

Sl. No	Parameters	Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Total Electricity Supply	Mkwh	342.74	214.48	344.44	195.54	448.47	227.60	407.52	231.12	460.42	234.94
2.	Total Consumption	Mkwh	209.75	185.15	207.56	176.64	241.38	204.49	206.89	206.08	265.42	88.14
3.	Line Losses	%	38.79	13.68	39.73	9.66	49.23	10.15	46.17	10.84	42.25	12.49
4.	Per Capita Consumption	KWh	376.96	1182.02	359.3	1093.49	403.08	1228.55	333.68	1202.84	413.92	1087.40
5.	Electric Domestic Connection	%	69.70	61.44	88.52	61.74	71.12	58.51	73.17	63.32	71.32	63.77
6.	Electricity Charges	Rs. per Unit	1.96	1.96	1.96	1.96	2.13	2.13	2.38	2.38	2.58	2.58

Telecommunication

Sl.No.	Parameters	Unit	1999-2000		2000-2001	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Telephone Connection	% of total HHs.	28.91	71.71	33.13	99.02
2.	Access to Telephone	No. per 1000 pop.	47.84	122.68	55.22	170.26
3.	Public Telephone	No. per 1000 pop.	0.92	6.25	1.49	7.15
4.	Telephone Efficiency Rate	Faults per 100 phones per month	18.65	1.90	13.70	1.50
5.	Mobile Connections	No.	9000	3500	9500	5500
6.	Access to Postal Services	PO per 1000 pop.	0.04	0.05	0.04	0.05

SANITATION AND SOLID WASTE

Sl. No	Parameters	Unit	1996-97		1997-98		1998-99		1999-00		2000-01	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Sanitation											
	(a) Access to Sewerage	%	Sewerage does not exist									
	(b) Access to low cost sanitation facility	% of HHs	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	(c) Availability of Public Toilets	per 1000 pop.	0.04	0.05	0.04	0.06	0.03	0.07	0.03	0.07	0.03	0.08
2.	Solid Waste Management											
	(a) Waste Water Treated	%	80	100	70	100	72	100	75	100	70	100
	(b) Solid Waste Generated	in Tonns per person p.a.	0.10	0.07	0.13	0.07	0.15	0.07	0.17	0.07	0.17	0.07
	(c) Solid Waste Collection Rate	%	100	100	100	100	100	100	100	100	100	100
	(d) Disposal Method (open dump)	%	100	100	100	100	100	100	100	100	100	100
	(e) Regular Solid Waste Collection		Collection of solid waste from households is done privately									
	(f) Housing Destroy in Disasters		NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

Module 5 : Governance

Budget Statement Of Municipal Corporation Total Receipts Rs. (In Lakhs)

Sl.No.		1998-99		1999-2000		2000-2001	
		Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Local Govt. per capita income	237.75	460.35	260.38	457.85	313.79	461.22
2.	Local Govt. per capita expenditure	218.99	309.64	243.07	272.01	292.60	264.68
3.	Debt service charge ratio	NIL	NIL	NIL	NIL	NIL	NIL
4.	Local Govt. Employees						
	(a) Regular	2415	1920	2415	1920	2415	1920
	(b) Daily Wager	432	343	432	343	432	343
	Total	2847	2263	2847	2263	2847	2263
	Local Govt. Employees per 1000 population	4.76	13.60	4.60	13.21	4.44	12.84
5.	Personnel Expenditure Ratio	64.44	74.82	65.95	81.76	54.45	81.07
6.	Contracted Revenue Expenditure Ratio	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Module 6: Housing

Sl.No	Parameters	Unit	1991		2001	
			Moradabad MC	Bulandshahr MB	Moradabad MC	Bulandshahr MB
1.	Household per dwelling unit	No.	1.11	1.03	1.11	1.01
2.	Houselessness	%	1.85	0.50	1.90	0.56
3.	Household Size	No	6.57	6.30	6.00	5.82
4.	Dwelling Size	No	7.24	6.27	6.61	5.85
5.	Tenure System					
	(a) Owned	%	81.47	74.03	83.72	76.28
	(b) Rented		15.42	21.77	11.78	18.13
	(c) Sub-letting		3.11	4.20	4.50	5.59
6.	Slum Concentration					
	(a) Slum Households	% HH	10.32	34.74	13.90	30.50
	(b) Slum Population	% (total pop.)	9.42	32.2	13.90	30.52
	(c) Slum Area	Ha.	4.03	3.13	7.9	4.1
	Supply of Housing (Sector-wise)					
	(a) Private	No.	N.A.	N.A.	1792	227
7.	(a) Public		N.A.	N.A.	149	38
8.	Housing Under Compliance (Sector-wise)					
	(a) Private	No	N.A.	N.A.	29097.90	7534.25
	(b) Public		N.A.	N.A.	72744.75	24109.60
9.	Average Construction Cost	Rs. per sq.mt.	N.A.	N.A.	4500*	4500*
10.	House Price to Income Ratio		--	--	20.81*	20.81*
11.	House Rent to Income Ratio		--	--	0.13*	0.13*
12.	Floor Area per Person (Sq.M.)		--	--	5.00*	5.50*
13.	Permanent Structures (%age)		--	--	91.50*	95.00*
14.	Housing in Compliance (% age of total maps approved by Development Authority)		--	--	40*	35*
15.	Land Development Multiplier		--	--	4.00	3.80
16.	Infrastructure Expenditure		--	--	N.A.	N.A.
17.	Mortgage to Credit Ratio (% age)		--	--	100.00	100.00